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UNIVERSITY OF ALBERTA

THE PREOPERATIONAL CHILD'S CONCEPTUAL UNDERSTANDING OF DEATH AS A FUNCTION OF EXPERIENCE

BY

Margaret (Peggy) Bekolay

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

IN

COUNSELLING

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

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THE UNDERSIGNED CERTIFY THEY HAVE READ, AND RECOMMEND TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH FOR ACCEPTANCE, A THESIS ENTITLED THE PREOPERATIONAL CHILD'S CONCEPTUAL UNDERSTANDING OF DEATH AS A FUNCTION OF EXPERIENCE SUBMITTED BY MARGARET (PEGGY) BEKOLAY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION IN COUNSELLING.

Dr. L. Stewin

Dr. R. Jevne

Dr. J. Blakey

Date: 1/Nov

To my father-in-law who died during the writing of this last chapter and to his grandchildren who were given the opportunity to learn of death and who often demonstrated an intuitive awareness of death which surpassed the cognitive.

ABSTRACT

The existing research on the development of children's concepts of death is limited and the findings have often been inconsistent and inconclusive. The purpose of the present study is two-fold. It seeks to explore Hildebrand's (1985) observation that death-related experience enhances the preoperational child's understanding of death, and extends the present body of literature by exploring the impact of varying levels of such experience and by reexamining the effects of age and intelligence on the concepts held by this group of children.

The sample consisted of 23 children who attended daycare centres in the city of Edmonton and who were identified as preoperational by their performance on three Piagetian conservation tasks. All children participated on an individual voluntary basis with parental consent. Each child was administered the Peabody Picture Vocabulary Test, was asked a prepared set of questions about their experiences with death and their understanding of eight different components of death (Kane, 1975), and then performed the three conservation tasks (mass, weight, and volume). Children were divided into three groups based on the nature of their experiences and were compared as to their level of understanding of the various components.

Results suggest that the death concepts of preoperational children are limited by their level of cognitive development, but that their understanding of specific death concept components is influeneced by both their prior experience with death and their age. Implications of this conclusion are disucssed in relation to their importance for counsellors, teachers and other adults faced with the task of helping young children cope with loss.

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CHAPTER I

INTRODUCTION

Death is a universal phenomenon. It affects all people in some way at some time, whether it be through the growing awareness of one's personal mortality, the experience of a death of a loved one, hearing others talk of death, the media, or simply thinking about death. Yet, society tends toward a denial of death (Swain, 1979). We rarely speak of death; we strive to preserve life at all costs; we feel uncomfortable and afraid when we are suddenly confronted by death. And this denial becomes even stronger when we are faced with the task of explaining and confronting death with children.

Young children symbolize life in our society. They are active and enthusiastic and represent our future so we do not often associate them with death. Fewer and fewer children die as medical knowledge and technology advances (Stambrook & Parker, 1987; Weber & Fournier, 1985). In addition, recent decades have witnessed the institutionalization of death as its occurrence has become increasingly confined to hospitals and nursing homes (Crase & Crase, 1976; Stambrook & Parker, 1987; Weber & Fournier, 1985) and removed from us and our children. Consequently,

parents and other adults tend to try to shield children from death in an attempt to protect them (Ferguson, 1978; Gartley & Bernasconi, 1967). They often discourage its discussion, reveal little information, use euphemisms (Gartley & Bernasconi, 1967; Weber & Fournier, 1985) and exclude children from funerals and other grief work (Ferguson, 1978; Reeves, 1985). While such practises are typically intended to be for the child's benefit, they often merely reflect adult reluctance and anxiety and serve to protect them from their own unmastered fear of death (Hayes, 1984; Furman, 1984; Tallmer, Formanek, and Tallmer, 1974).

But what happens to the child who is suddenly confronted with the death of a loved one, a friend, or a pet? How does one explain death to that child? How can one help him/her to cope with loss? Traditionally, people have assumed that young children (under age 5 or 6) have no curiosity about death (Tallmer et al., 1974), have no concerns about death (Reeves, 1985), and have no understanding of death (Lonetto, 1980; Reeves, 1985). While there has been an increased interest in the topics of death and bereavement, there has been comparatively little research conducted with children.

Young children can grieve. In loss, they experience separation, abandonment, hurt, and pain. But they conceptualize and experience their world

differently than do adults (Bertman, 1982) and their understanding of death influences how they cope with loss (Codden, 1977; Orbach, Gross, Glaubman, & Berman, 1985; Reilly, Hasazi, & Bond, 1983) and terminal illness (Stambrook & Parker, 1987), and may also play a part in the development of fears and suicidal behavior (Reilly et al., 1983) and how they cope with other losses (Kastenbaum, 1967).

It is important, then, that those working with children have some understanding of what children at different ages or stages know of death so that they are able to effectively answer their questions and deal with their concerns (Bolduc, 1972; Orbach et al., 1985; Reilly et al., 1983). Clinicians, teachers, and parents need to recognize the difference between their own and children's grasp of real events (Furman, 1984) and must be sensitized to important issues that may arise when children deal with death (Stambrook & Parker, 1987). The way they help these children cope with their losses must depend on the child's specific needs, his/her capacity for understanding (Codden, 1977) and, most importantly, his/her pre-existing conceptions of death (Matter & Matter, 1982; Salladay & Royal, 1981).

While several researchers have recognized the importance of investigating death concept development

to provide guidelines for helping children cope with loss, the research has not been extensive and is not conclusive. That understanding of death develops in an orderly sequence from a total unawareness to a mature and logical conception which takes into account cause and effect is a notion and observation that, it would be fair to say, is unanimously accepted (Codden, 1977; Matter & Matter, 1982; Wass, 1984). However, the specific factors involved in this development and the manner and degree to which they influence it have been cause for much speculation and disagreement. A number of factors have been identified as contributing to the ideas, thoughts, and understanding children have of death and have been studied independently and in varying combinations with different groups of children.

The acceptance of the death concept as a developmental phenomenon has determined the direction of much of the research. Many investigators have proposed that level of understanding is determined by age (Atwood, 1984; Gartley & Bernasconi, 1967; Melear, 1973; Nagy, 1948), while others have suggested that level of cognitive development provides a better organizing principle (Koocher, 1973; Sternlicht, 1980; White, Elsom, and Prawat, 1978). In general, both of these contentions have been supported, for there has been considerable consistency in the observation that

level of understanding of death increases with both the child's age (Atwood, 1984; Kane, 1975; Safier, 1964; Swain, 1979; Weininger, 1979) and with his/her cognitive maturity (Koocher, 1973; Sternlicht, 1980), which naturally, are in themselves, related. The disagreement comes in the degree to which these factors determine the level of understanding and in whether they influence the total concept or merely specific elements of it.

Whether or not various statistical analyses or observations have demonstrated such trends, all researchers have noted that, within a single age group or cognitive developmental level, there are individual differences. It would seem, then, that there must be other contributing factors involved. One of these factors which has received considerable attention is that of experience with death and death-related events (funerals, viewing the body, etc.). Reilly et al. (1983) suggested that such experiences (as well as other factors) may act as catalytic agents speeding up the normal developmental process and, therefore, could account for the observation that some children of an early age or cognitive level hold more mature and realistic concepts than their peers.

This hypothesis has not been investigated extensively; however, two studies have supported it.

Hildebrand (1985) found a selective effect of experience on children's concepts that suggested it may indeed speed up the developmental process. While children at the concrete operational stage of cognitive development demonstrated mature and realistic death concepts regardless of their prior experience or inexperience with death, children at the preoperational stage who had experienced the death of an intimate person, had seen a dead person, or had attended a funeral demonstrated more mature death concepts than their inexperienced peers. In fact, their level of understanding equalled that demonstrated by the concrete operational children. Ryan (1984) observed a similar trend; however, she had used only age of the child to classify her subjects as preoperational. While such findings are interesting and important to professionals/adults working with children, their implications may not extend as far as the authors have proposed. Hildebrand (1985) centred her discussion around the implications that such evidence had for death education programs and helping young children deal with new losses. However, she did not actually investigate the degree to which such education might influence children's understanding. Instead, she proposed such programs would be beneficial to the child in terms of enhancing his/her understanding of death

based on her observations of preoperational children who had already had actual encounters with death in their families or community.

While it is important to replicate Hildebrand's finding that actual experience with death advances the preoperational child's understanding, it is equally important to investigate the effects of other types of death experiences. Does the preoperational child who has had the opportunity to discuss death with a parent/teacher/adult have an understanding equal to that of the preoperational child who has experienced a death? Or is his/her understanding still more immature? Is it as immature and unrealistic as that of the preoperational child who has neither experienced nor discussed death? Is the accuracy of the preoperational child's death concept limited to his/her actual experience of a loss or viewing a dead person funeral attendance? Does the experience of having a pet die enhance understanding?

Such questions led to the development of the present study. It's purpose is two-fold. First, it seeks to replicate Hildebrand's (1985) and Ryan's (1983) finding that experience with the death of another person enhances the death concepts of the preoperational child. Secondly, it strives to extend and support the existing literature by examining the

effects of pet death and discussion/teachings on the preoperational child's understanding and by reexamining the effects of age on the concepts held by this group of children.

Twenty-three children between the ages of 3 and 7 were identified as preoperational and as having an average level of verbal intelligence and were interviewed as to their experiences with death and their understanding of the eight different elements of death previously delineated by Kane (1975). The children were grouped according to their level of experience with death and were compared on their level of understanding of these eight elements. Separate analyses were conducted for the effects of age and level of intelligence to determine the extent to which the findings of Kane (1975) and other researchers were supported.

CHAPTER II

REVIEW OF THE LITERATURE

In reviewing the literature on the development of children's death concepts, an effort has been made to present an overview of the research and findings in five main areas relevant to the present study: history or background of the topic, studies exploring the effects of age, cognitive development, and experience, and investigations of interactional effects of these three factors.

A. History

One of the first empirical investigations into the ideas that children hold of death was conducted by Schilder and Wechsler in 1934. They recognized that the attitudes of adults toward death were greatly influenced by philosophical and religious orientations and proposed that systematic inquiry into children's attitudes would minimize such influences and would supplement previous research which had relied primarily on introspective methods. They asked children ages 5 to 15 a series of predetermined questions and had a number of them describe pictures as a means of initiating further discussion on death. Several of the youngest children also watched a doll being knocked

over and were asked to describe what they thought had happened to it.

A large number of children were interviewed; however, the responses of those who were mentally retarded, epileptic, hyperkinetic, or behavior disordered were excluded from analysis. The description provided, then, was derived from the responses of the remaining 16 children, all of whom were under the age of 9.

Schilder and Wechsler observed that these children spoke of death in a matter-of-fact manner and that their understanding did not appear to be linked to their notions of life or time. In general, their ideas centred around deprivation and the most obvious aspects of death such as the immobility of the dead, cessation of functioning, and the coffin and burial process. While they readily believed in the death of other people, they thought that death was reversible and occurred only through violent and accidental means. Many did not believe in personal mortality; others thought their own deaths might be possible but only in the very remote future and, again, only through violence. A fear of death per se was not evident, but several children expressed a fear of being murdered.

Schilder and Wechsler concluded that young children learn about death mainly through what they

hear by chance from others. When this information is limited the child fills in gaps with his/her own information and generalizes from one situation to another. His/her inability to recognize inconsistencies between what is heard and what is observed leads to incomplete and inconsistent ideas.

Anthony (1939, 1940) conducted an exploration into the child's discovery of death and studied a large and varied group of children ranging in age from 3 to 11 years. She recruited children from schools and a Child Guidance Clinic, had them complete the Stanford-Binet Intelligence Test, then obtained information about their discovery and understanding of death through parent records, a story completion task, and their definitions for the word "dead."

The measures or combination of measures used varied from child to child. Approximately 2/3 of the children defined "dead," and it was this information that formed the base of her study. She found that responses could be categorized into five levels of understanding that varied with both the mental and chronological ages of the child.

The first two levels reflected ignorance and limited or erroneous understanding respectively and were most characteristic of children with mental ages of 5 years or younger. Children responding in this

fashion typically equated death with illness, hospitals, and sleep. The transition to the middle level seemed to occur between the mental ages of 6 and 8 and reflected more accurate understanding. Children at this level recognized that all people die, but tended to view death as externally caused through accident or as a punishment. They typically focused on the non-biological aspects of death such as the funeral, burial, and immobility and position of the dead. Age 8 marked movement into the highest two levels of understanding characterized by recognition of death as an internal process and focus on its logical and biological essentials. Complete understanding was attained by a mental age of 13. Home records kept by some parents verified these stages, but suggested they may occur at earlier ages in brighter children.

While the story completion task did not provide information as to stages of death concept formation, the number of explicit references made to death and death fantasies suggested that, contrary to general opinion, young children do have some knowledge of death and do think about it. Anthony concluded that it is futile to try and shield them from learning of death and that to do so merely reflects adults' reluctance and fear. However, she cautioned that, when speaking

to children of death, adults must recognize that their ideas will differ.

Nagy (1948) explored what young children think death to be through their written compositions, drawings, and discussions. While not all children were assessed with the same measures, Nagy noted a trend in the types of answers or comments expressed by children at different ages and suggested that an understanding of death develops in three distinct stages.

Children ages 3 through 5 indicated a disbelief in death as a definitive event. The youngest of these children tended to deny death viewing it as simply a departure or sleep. Their comments suggested that they perceived dead people to be living some place else under changed conditions. Restrictions in movement, breathing, etc, were thought to be induced only by the confinements of a coffin, and a dead person was thought to be able to think and feel and know. The oldest children in the group no longer denied death but viewed it as temporary and reversible. Dead people were believed to come back to life if they were not "too dead."

Age 5 marked transition into the second stage of development where death was personified. Two-thirds of 5 to 9 year-olds described death as some type of threatening figure who carried off bad people;

one-third actually used the word "death" for the dead person. While these children demonstrated more complete understanding than the younger children, they did not consider death to be personally relevant.

It was only after age 9 that children began to view death as a universal and inevitable process involving cessation of all corporeal activities. This marked Nagy's third and final stage of death concept development.

Nagy concluded that the denial of death in Stage 1 was a reflection of an emotional unreadiness to accept death and that the unrealistic beliefs which characterized Stage 1 and 2 resulted from the young child's egocentric nature and his/her inability to understand the experiences of others.

These studies were instrumental in opening a new research area as they introduced the notion that the child and death are not mutually exclusive topics and established the death concept as a developmental phenomenon. However, it is difficult to generalize from their findings. Their sample selection involved a number of clinical cases (Anthony, 1940; Schilder & Wechsler, 1934), and specific racial groups (Nagy, 1948), and was restricted to a particular era (1930's and 1940's) which quite likely was characterized by different notions of death and customs than the 1980's.

In addition, the investigations were limited by their methods. None of the researchers standardized their investigation procedures, but instead, varied them according to the child's age and ability and ease of assessment. Nagy (1948) and Schilder and Wechsler (1934) analyzed their results only descriptively and did not provide any indication as to the proportions of children within each age group attaining a particular level of understanding. Nevertheless, such research sparked an interest in the death concepts of children and provided the basis for much of the more recent research.

B. **Age**

In the tradition of the early researchers like Anthony (1940) and Nagy (1948), the bulk of the research on death concept development has attempted to reveal the manner in which children's understanding matures with age (Sternlicht, 1980). The majority of the studies have been descriptive in nature and have relied on case study and interview methods for their data. While there seems to be a general consensus that age plays an important part in the gradual aquisition of an accurate and realistic understanding of death, there is much disagreement as to the precise age at

which various components of the death concept are attained.

One of the earlier descriptive analyses was presented by Gartley and Bernasconi (1967) who explored the thoughts and ideas of Roman Catholic school children. They grouped children by grade (Kindergarten to grade 6) assuming that all children within the same grade would have received the same amount and level of academic and religious instruction. They observed that children's attitudes and beliefs about death became increasingly more accurate and realistic with age.

The youngest children (5:5 to 6:4) did not demonstrate structured death concepts. They often contradicted themselves and typically focused on only the concrete and visible aspects of death such as the coffin, closed eyes, and immobility. Most knew a dead person could not breathe, but questioned his/her ability to feel. They did not believe death could happen to them unless it was in the very remote future. The next age group (6:6 to 7:5) recognized the permanence of death but did not always provide realistic explanations for it. They also focused on the concrete and believed personal death to be remote. Most children between 7:5 and 8:4 years, however, realized death as an immediate possibility. They

demonstrated a more abstract level of understanding, but still had a tendency to contradict themselves. Children aged 8:5 to 9:8 provided more detailed responses and suggested a greater acceptance of personal mortality. Several made a distinction between body and soul in reference to the irrevocability of death. Only the two eldest groups of children were questioned about the causes of death. While both groups were able to name several realistic causes, the younger (9:6 to 10:11) tended to mention violent means more often than the older(10:11 to 14).

Gartley and Bernasconi claimed that children in their study differed from those in other studies in that even the youngest demonstrated some understanding of inevitability, irreversibility, and personal mortality. However, several of their explanations for their beliefs were fantasy-based: for instance, death is permanent because, "Heaven has no door or ladder to let one out". While several children said they believed death was possible at any time, they said they thought they themselves would not die until they were very old. Unlike Nagy's (1948) subjects, none of the children personified death.

It is difficult to determine from this study the age at which the various elements of the death concept were held by the majority of children as Gartley and

Bernasconi did not conduct any statistical analyses. Responses given frequently included mention of Heaven and Hell, body and soul, and an afterlife. While Gartley and Bernasconi did not address the issue, it may be that the religious training the children had received influenced their understanding.

Nagy's (1948) study has been influential in promoting research in the death concept area and has been the basis for some more recent descriptive studies. Melear (1973) sought to investigate her proposed stages and interviewed several children within her same age range (3 to 12 years). His interview was unstructured, but centered around common themes expressed by her subjects. Melear asserted that the responses he obtained seemed best categorized by type rather than by stage and found some overlap of age between the different types of responses. However, his findings did show some parallel with those of Nagy's.

Two response types were consistent with Nagy's first stage in which young children denied death as a definitive event. Melear found that children aged 3 and 4 years perceived death as simply another phase of life rather than a separate and distinct state. Several children between the ages of 4 and 7 recognized a distinction between life and death, but stated the dead could feel, function, and return to life. Nagy's

(1948) children, aged 3 to 5, expressed similar beliefs in that they saw death as a departure where the dead live on under changed circumstances and/or as a temporary state from which one could return.

Melear found that, after age 5 or 6, several children had achieved a more accurate and realistic understanding of death. A few between 5 and 10 years believed death to be irreversible, but thought the dead continued many of their biological functions. The majority of children over age 6, however, understood death as a permanent state characterized by the cessation of all functioning. Many of these subjects showed anxiety about death and belief in an afterlife, both of which Melear attributed, in part, to their understanding of death's permanence. Unlike Nagy, he found no evidence of a stage at which death was personified.

Atwood's (1984) analysis also grew out of Nagy's (1948) work, but for reasons which differed from those of Melear (1973). She recognized that Nagy's results were limited by methodological problems, date of publication, and culture, and she proposed that a comprehensive and contemporary investigation was warranted. Atwood interviewed a large number of urban and suburban children in Kindergarten, grade 3, and grade 6. She asked 9 questions and categorized

responses to each in terms of gender, school setting, and grade level. Like Nagy, Atwood found a general trend for older children to demonstrate more realistic views of death than younger children. Differences in understanding tended to be greater between kindergarten and grade 3 students than between grade 3 and grade 6 students.

With respect to various death concept components, Atwood obtained varied results. In general, older children provided more varied explanations or causes for death including more spiritual and philosophical reasons than did younger children. Non-natural causes were most often cited by the youngest children and were typically violent and intentional in nature (shooting, stabbing, etc.). The understanding that all people die and can die at any time increased with age. Most children in grades 3 and 6 understood that death marks the cessation of all bodily functioning while approximately 1/3 of kindergarten children believed the dead could still do some things. Unlike Nagy (1948) and other researchers (Melear, 1973; Kane, 1975; Safier, 1964; Weininger, 1979), Atwood found no age-related trend in children's understanding of death's permanence. Only 2/3 to 3/4 of all age groups demonstrated understanding of irrevocability and physical deterioration. Probing revealed that two

recent movies depicting reincarnation themes may have influenced children's responses. Like Melear (1973), Atwood did not obtain any evidence to support Nagy's (1948) finding that children personify death. While she observed some urban/suburban and sex differences, they were not consistent and were not statistically analyzed.

Safier (1964) used Nagy's (1948) proposed stages of death concept development and Piaget's proposed stages of animism as bases from which to study the development of children's understanding of both death and life. She devised three stages or categories of responses based on the commonalities between the two theories and investigated young boys' concepts. She assessed their attribution of life and death to 10 familiar inanimate and animate objects and explored the reasoning underlying their responses.

Safier observed that understanding of both life and death increased with age and that age 6 to 7 marked a significant move toward adult-like understanding. Responses of the youngest boys (ages 4 and 5) reflected a cyclical notion of life and death where the dead were believed to function and return to life and the inanimate were believed to live and die. The responses of the next group (ages 6 and 7) reflected a theme of externality where movement defined life and death was

externally caused. The oldest group (ages 10 and 11) recognized both life and death as internal processes.

Safier proposed that responses of her three groups reflected distinct developmental stages common to both life and death concepts and similar to the stages proposed by Piaget and Nagy. She suggested that the relationship between the two concepts was highest for the oldest group because they were able to integrate their ideas toward a mature adult reality and was lowest for the middle group because they were in a transition period marked by movement from a global to a more analytic approach to reality. However, generalizability of her results is limited to young males.

Much of the research on age-related changes in death concept development have focused on tracking the changes in specific components of the death concept. Perhaps the most extensive exploratory investigation conducted was that carried out by Kane (1975). She identified 10 death concept components and interviewed children ages 3 through 12 to assess how age and experience with death related to their development. In general she found that understanding of death improved with age and that the aquisition of individual components progressed from absence to partial presence to complete presence.

While age accounted for half the variance in death concepts, a clear-cut pattern of component aquisition could not be discerned; however, Kane observed a developmental trend for clusters of components. Concepts of death appeared to develop most rapidly between the ages of 3 and 5, slowed somewhat between 7 and 9, and progressed unevenly between 10 and 12. All children held the component of Realization -- an awareness that death exists. While the youngest children did not have a realistic idea of what death means, they were able to correctly identify, in a series of pictures of rabbits, the one portraying a dead rabbit. By age 5, most children recognized that the dead do not move (Immobility) and that they are physically separated or removed from the living (Separation). By age 6, the majority had aquired the components of Causality, Dysfunctionality, Universality, and Irrevocability. They recognized death as an internal process marking the cessation of functioning and understood that all people die and that none can be brought back to life. The realization that less obvious functions such as seeing, feeling, thinking, and dreaming also cease was not demonstrated consistently until age 8 (Insensitivity). Only the eldest children (age 12) seemed to know the ways in which the dead and the living differ in Appearance.

Consistent with other findings (Atwood, 1984; Melear, 1973) which failed to support Nagy's (1948) second stage, Kane's children did not personify death. A small number of the older children said they could imagine death as a person, but did not believe it was so.

Kane noted that, while children 8 years of age and older did not typically aquire new death concept components, their existing components matured and became more abstract. Looking at the age-related changes in the quality of their responses, she proposed three stages of death concept development. In the first stage, young children thought about death in terms of structure and focused on the immediate and the obvious. Death was viewed as a description, a particular position, and a non-emotional separation. The addition of a functional component marked the onset of the second stage at which children were able to consider the less obvious. They viewed death as internal and as an explanation for dysfunction and insensitivity. While the third stage (above age 8) was not generally characterized by the aquisition of new death concept components, thoughts about existing components became more abstract. Death was defined according to dysfunction, insensitivity, and

inactivity. Responses of several children reflected existential thinking and hypotheses about an afterlife.

Other researchers have adopted an approach similar to that of Kane's (1975,1979), but have focused primarily on the development of a few select death concept components. Swain (1979) placed children ages 2 through 16 in 5 age groups of 3 years each and compared their levels of understanding of finality, irreversibility, and personal mortality. Although she also looked at the effects of sex, level of parent education, and degree of religious influence, she found that age alone accounted for the differences observed.

In general, children's responses tended to become more elaborate, accurate, and abstract with age. The youngest group (2 to 4 years) differed from the others in that they believed death to be reversible, unlikely or only by accident, and not personally relevant or at least very remote. The majority of 5 to 7 year-olds demonstrated a marked movement toward concept accuracy and expressed acceptance of death as final and involving cessation of functioning, as more likely, and as personal but still remote. While the other age groups did not differ significantly in level of understanding, their responses became increasingly abstract and personally relevant with age.

Childers and Wimmer (1971) focused on univerality and irrevocability, but hypothesized that their development would be independent of age. This hypothesis was disconfirmed as they observed that a greater percentage of older than younger children demonstrated understanding. Such a trend was more established for the component of universality. They noted that there seemed to be a significant shift in understanding between the ages of 6 and 7 and that comprehension was almost unanimous by the age of 9. Development of irrevocability seemed to be less a function of age as few children before age 8 and only 1/2 of 10 year-olds demonstrated understanding. However, because no children over 10 years were included, a possible age-related trend for older children may have been ignored.

Weininger (1979) criticized the question-and-answer interview format used by most researchers and suggested that young children's verbalizations may not fully reflect their true thoughts, feelings, and understanding. She proposed that, because children learn through play, observation of their play as well as their verbal responses might provide additional insight into their understanding of death, feelings, and the possible relationship between them. She studied children ages 4 through 9 using 4

death concept questions designed by Koocher (1973) and two predetermined play situations involving concepts of "dying" and "dead". Children were provided with toy medical supplies, a black box, and mother, father, and child dolls. In one play situation they were told that the child doll, "is very sick and going to die"; in the other, that the child doll,"was very sick, and is now dead."

A descriptive analysis of responses showed that understanding of "dying" and "dead" tended to increase with age. Examination of both play and verbal statements regarding the permanence of death revealed some discrepancies. Children ages 4 and 5 generally did not demonstrate understanding of "dying" and "dead" in either their play or speech for over 2/3 had the sick doll recover, the dead doll return to life, and expressed belief in reversibility. By age 6, approximately 2/3 demonstrated understanding of irreversibility in their play, but only 1/3 in speech. This trend was reversed at age 7. By ages 8 and 9, verbal and play concepts appeared to have become more similar and more abstract although play concepts generally seemed slightly better developed. Weininger concluded that the period of greatest discrepancy (age 6 to 7) may reflect the developmental process through which the child unconsciously sorts out the

relationship between what he/she has been told and what he/she thinks and feels. She also noted that this age marked a distinct conceptual shift as these children tended to demonstrate increased understanding of death as having natural/internal causes, as being personal and possible at any time, and as involving the cessation of life.

Weininger's (1979) method and findings were re-examined by Wass, Dinklage, Gordon, Russo, Sparks, and Tatum (1983) with a larger and more varied sample. Responses of children (ages 3 to 7) to Koocher's (1973) questions and the two play situations were categorized as "dead" which relected adult-like understanding of irreversibility, internal causality, and personal mortality, "not dead" which reflected immature and inaccurate understanding, and "don't know." Like Weininger, Wass et al. observed that the accuracy of children's death concepts increased with age. Older children were less likely to have the dead doll revive than were younger children. However, approximately 1/2 of every age group had the sick doll recover and a number of children responded in a "don't know" fashion. While Wass et al. suggested that this play situation may have been ambiguous; it may be that the failure to observe an age-related trend was due to the fact that

Weininger had included 8 and 9 year-olds and they did not.

In contrast to Weininger's findings, Wass et al. failed to find a marked difference between children's play and verbal concepts. When differences were observed, an equal number of children expressed greater understanding verbally as did children expressing greater understanding through play.

Most studies of age-related changes associated with the development of a mature death concept have focused on young children; however, Bolduc (1972), looked at changes occurring between the ages of 9 and 14. Through a pilot study she found that, with age, death concepts moved from a descriptive level focusing on the concrete aspects of immobility and cessation, to a causal level focusing on bodily aspects and causes for dysfunction, to an inferential level focusing on hypotheses about an afterlife. She translated these three levels into multiple choice questions for six hypothetical death situation stories and compared the level of response choices for children of different ages.

She found that understanding of death increased with age in a progressive and gradual manner. While there was no significant difference in level of understanding from one year to the next, a difference

was observed when there was more than one year between the ages! Unlike other researchers who had obtained results suggesting that children's death concepts are mature by age 10 - 12 (Atwood, 1984; Childers & Wimmer, 1971; Gartley & Bernasconi, 1967; Kane, 1975; Safier, 1964), Bolduc questioned whether they were fully developed by age 14 and proposed that further investigation using an adult comparison group was warranted.

Several researchers recognized additional factors as potentially influential, but included age as one of their many variables to be studied. For instance, Townley and Thornburg's (1980) multivariate investigation demonstrated some support for age effects as children in grades 5 and 6 demonstrated more accurate understanding of inevitability, irreversibility, and cessation than children in grades 1 and 2. Responses of third and fourth-grade children did not differ significantly from either of these groups. In contrast to other researchers who observed a significant increase in understanding occurring at approximately age 7 (Childers & Wimmer, 1971; Melear, 1973; Safier, 1964; Swain, 1979; Weininger, 1979), Townley and Thornburg proposed that the turning point must occur after age 11 for many children as nearly half of their fifth and sixth graders demonstrated a

low understanding of death. However, children were evaluated on their understanding of only 3 death concept components and were described as having high or low understanding simply by their obtaining a death concept score above or below the mean. Thus, such a statement may be somewhat misleading.

Reilly et al. (1983) also conducted a multivariate investigation which involved studying the effect of age on the development of irreversibility and personal mortality components. All but 1 of the children aged 5 to 10 years demonstrated understanding of death's irreversibility and all children 8 years and older expressed a belief in personal mortality. While 5 seemed an early age for such complete understanding of permanence, it may be that their other variable - experience - served to enhance the concepts of the youngest children.

In an investigation designed to replicate a study by Derry in 1979, Jenkins and Cavanaugh (1985-86) studied children aged 6 through 12 and briefly looked at the effect of age. Using Derry's death concept scale, they found that age appeared to contribute more to its variance than did sex, socioeconomic status, or cognitive ability, but that its contribution was not large.

Age was found to interact with other factors to influence children's understanding of death in a study conducted by Orbach et al. (1985). Children in grades 1, 3, and 5 (ages 6 to 11) were identified as having high or low anxiety levels and high or low cognitive ability, then were rated on their understanding of both human and animal death. While they found that understanding of death did increase with age, they observed that high levels of general anxiety served to lower cognitively bright children's understanding at first and fifth grade levels. Concepts of third grade children having low cognitive ability were also lowered by high levels of anxiety. Of particular interest were the grade 1 children, for while age was associated with an increase in death concept maturity, grade 1 students who were bright and had low anxiety levels demonstrated understanding equal to that of grade 5 students.

Orbach et al. focused on both human and animal death to investigate the degree of concept specificity or generality at various ages. They found that understanding of human death developed earlier than understanding of animal death for all children, and that brighter children were able to understand animal death better than their less-bright peers. They suggested that, while children may understand death in a specific example such as human death, they may not

have grasped the concept fully enough to generalize to other instances.

Orbach et al. viewed their results from a psychoanalytic perspective and concluded that, even at very young ages, bright children may have the cognitive ability to understand death if low levels of anxiety reduce the emotional need to distort death's meaning. Less bright children may not need such defense as their understanding of death may not be complete. Death concepts of children aged 8 and 9 were thought to be unaffected by anxiety because the children would be in the relatively calm latency stage of development. They proposed that poor conceptual understanding of animal death was also a function of defense as children often demonstrate a strong emotional attachment to animals.

Study limitations reduce the generalizability of these results. First, the children studied were middle class Israeli children whose understanding of death may well have been influenced by their culture and religious teachings. Secondly, WISC-R Similarities and Information subtests used to assess children as high or low cognitive ability may not have been the most robust subtests to use. Thirdly, the researchers used merely the average and median scores to identify children as having high or low cognitive ability and high or low anxiety level so would likely have had several children

who were borderline or between the extremes. And finally, while death concept questions were designed to assess understanding of irreversibility, cessation, universality, and old age, Orbach et al. provided no information as to how age, cognitive ability, and anxiety influenced these individual components.

Summary

While few would challenge the notion that the child's level of understanding of death is, in some way, related to his/her age, there has been much controversy as to the age at which the overall concept becomes adult-like (Bolduc, 1972; Orbach et. al, 1985; Townley & Thornburg, 1980) and the ages at which specific components are attained. Some studies have reported unique findings such as an age-independent understanding of finality (Atwood, 1984), personification of death (Nagy, 1948), and incomplete concept attainment after age 11 (Bolduc, 1972; Townley & Thornburg, 1980). Others have been more consistent.

In general, most have observed a gradual increase in concept maturity with age (Atwood, 1984; Gartley & Bernasconi, 1967; Kane, 1975; Melear, 1973; Safier, 1964; Swain, 1979; Townley & Thornburg, 1980; Weininger, 1979). Consistent trends suggest that preschoolers (ages 3 to 5) have some realization of death (Kane, 1975), but tend to view the dead as living

under changed circumstances and/or able to return to life (Bertman, 1982; Kastenbaum, 1967; Melear, 1973; Reilly et al., 1983; Safier, 1964; Stambrook & Parker, 1987). They talk of death in a matter-of-fact manner (Kastenbaum, 1967; Stambrook & Parker, 1987), focus on concrete and visible aspects of death such as the body and burial and often contradict themselves (Gartley & Bernasconi, 1967). Several researchers have noted a marked change in understanding at 6 or 7 years (Atwood, 1984; Childers & Wimmer, 1971; Lonetto, 1980; Melear, 1973; Safier, 1964) as children move toward more adult-like notions of universality and inevitability (Swain, 1979; Stambrook & Parker, 1987), finality (Gartley & Bernasconi, 1967; Melear, 1973; Reilly et al., 1983; Swain, 1979), cessation (Atwood, 1984; Melear, 1973; Swain, 1979), and causality (Stambrook & Parker, 1987; Weininger, 1979). By age 8 or 9, children typically express mature and realistic concepts viewing death as a personally relevant, irreversible, internal biological process involving complete cessation (Childers & Wimmer, 1971; Gartley & Bernasconi, 1967; Kane, 1975; Stambrook & Parker, 1987).

A number of explanations have been proposed to account for this progression. Yalom (in Stambrook & Parker, 1987) and Orbach et al. (1985) adopted a

psychoanalytic orientation which suggested that young children may, in fact, understand or have the ability to understand death, but may distort or deny its true meaning to shield and protect themselves from the anxiety that understanding creates until a time when they are emotionally ready to deal with it. Swain (1979), Lonetto (1980), and Atwood (1984) proposed that the transition in thought noted at age 6 or 7 is due to the fact that children at this age have entered school where they are more likely to be exposed to discussion and events with peers and teachers which would provide them with information about death.

A third explanation which has received considerable attention and interest seeks to explain age-related changes from a cognitive developmental standpoint. Tallmer et al. (1974) suggest that this is a logical transition as increases in age have been shown to coincide with cognitive changes which allow for more advanced and abstract thought structures.

C. **Cognitive Development**

Cognitive developmental theorists studying death concept development have proposed that children's understanding of death becomes more accurate and complete as they begin to grasp the essence of time,

space, and reversibility, and can understand another's experiences. Much of the research conducted in this area has adopted Piaget's theory of cognitive development as its organizing framework (Ferguson, 1978; Jenkins & Cavanaugh, 1985-86; Koocher, 1973).

The importance of level of cognitive development in determining a child's conceptual understanding of death was first recognized by Anthony (1940) who observed a stronger relationship between mental age and concept of death than between chronological age and concept of death. While such a relationship was not empirically investigated until only recently (Hornblum, 1978; Koocher, 1973; Kalmbach, 1978; Sternlicht, 1980), a few researchers studying age-related changes interpreted their results in light of Piaget's theory (Kane, 1975; Nagy, 1948; Reilly et al., 1983; Tallmer et al, 1974).

Tallmer et al. (1974) and Nagy (1948) proposed that the egocentrism of the young child retards death concept development as it prevents him/her from comprehending events experienced by others. This is consistent with the notion that the marked transition in death concepts at 6 or 7 years (Childers & Wimmer, 1971; Melear, 1973; Safier, 1964; Swain, 1979; Weininger, 1979) is due to the onset of the concrete operational stage which is characterized by qualitative

changes in the child's thinking processes and a reduction in egocentrism (Jenkins & Cavanaugh, 1985-86; White et al., 1978).

In 1972, Hansen (in Weininger, 1979) used a Piagetian stage framework to design an age study which lent some support to such interpretation. She selected three age groups of children that she felt would correspond with Piaget's three cognitive stages and compared their concepts of death. As she had expected, 4 and 5 year-olds tended to view death as a personally irrelevant, non-permanent, reversible state; 7 and 8 year-olds typically recognized death as an inevitable, internal corporeal process marked by cessation of functioning; and 11 and 12 year-olds demonstrated complete understanding of dissolution and expressed abstract notions of reincarnation and body/soul differentiation. Hansen concluded that her three groups had, indeed, reflected Piaget's preoperational, concrete operational, and formal operational stages and proposed that the notions of classification, conservation, time, and age aquired in the concrete operational period were necessary elements for grasping death as a definitive and universal event.

While Kane (1975) did not design her study with Piagetian theory in mind, she also proposed that her three stages paralleled those of Piaget's. She

suggested that Stage 1 represented his preoperational stage for it was characterized by illogical, egocentric, and magical thought and emphasized the immediate and the perceptual. Children focused on the observable aspects of death and believed wishes and thoughts to be posssible causes. Stage 2 seemed to mark the advent of concrete operational thinking, as children now were able to consider more than one aspect of death (structure and function), but continued to focus primarily on the concrete. As they moved toward the third stage, they were better able to consider the less obvious aspects. Finally, Stage 3 was characterized by the hypothesizing, abstractness, and logic of Piaget's formal operational stage.

While these studies appeared to reflect the importance of level of cognitive development in determining a child's understanding of death, they merely inferred cognitive level from age and neglected to assess it empirically.

Koocher (1973) was the first to include a concrete measure of level of cognitive development in the study of children's death concepts. He identified children ages 6 through 15 who demonstrated an average level of intelligence as preoperational, concrete operational, or formal operational according to their performance on three Piagetian conservation tasks (mass, number, and

volume) and one hypothesis-testing task. Those failing one or more conservation tasks were classed as preoperational; those passing all conservation tasks, but failing the hypothesis-testing task were classed as concrete operational; those passing all tasks were classed as formal operational. Each child was asked four pre-determined questions about death and their responses were compared.

Children's responses to the question, "What makes things die?" were rated by 4 judges as egocentric if they reflected fantasy reasoning or magical thinking, as concrete if they involved specific but realistic reasons, and as abstract if they described death as a natural process. Only 1/2 of all responses received perfect interrater agreement and were analyzed. Egocentric responses were few, but were limited to children at the preoperational level. While both preoperational and concrete operational children provided concrete answers, preoperational children did not provide as many abstract responses. An equal proportion of concrete and formal operational children recognized death as a natural process.

While the majority of all groups believed death to be permanent, a few of the preoperational children assumed the dead could return to life if cared for properly. They also tended to provide more unrealistic

estimates of when they themselves might die than did those at either of the other two stages. Children at each level provided concrete and often stereotyped explanations of what happens after death. These were varied, but most often involved themes of funerals, burial, decomposition, and heaven.

Koocher concluded that cognitive developmental level is more important than age in determining what a child knows of death because children the same age are not always at the same cognitive stage and because only preoperational children provide egocentric and unrealistic responses. He suggested that such responses reflect the attribution of life to inanimate objects and the magical/fantasy reasoning observed by Piaget. He also proposed that the preoperational child's egocentricity restricts learning from another's experience and, therefore, makes understanding death difficult because the child himself/herself has not yet died.

Sternlicht (1980) found some support for Koocher's (1973) conclusions. Using his study as a model, she explored the death concepts of a small number of mentally retarded children ages 10 through 19. All children failed one or more of Koocher's conservation tasks so were considered preoperational. Sternlicht adapted Koocher's response-classification method for

all four of his questions, but obtained perfect interrater agreement on only 36% of responses. Of those, 70% were egocentric and unrealistic in nature. This finding lends some support to Koocher's claim that level of cognitive development is a more important factor than age, for children demonstrated immature death concepts despite the fact they were all older than 10 years--an age at which past research typically has shown to be associated with a relatively accurate understanding of death (Childers & Wimmer, 1971; Gartley & Bernasconi, 1967; Kane, 1975; Stambrook & Parker, 1987).

Kalmbach (1979) focused on cognitive development in a multivariate investigation into the development of children's understanding of death's finality as it relates to irreversibility and cessation of functioning. Children were identified as preoperational or concrete operational according to their performance on 4 conservation tasks, and were asked a series of questions dealing with death and some other factors (experience with death, religiousity, animism, and beliefs in magical causality and immanent justice). Comparison of responses reflected the influence of cognitive development for nearly twice as many conservers as nonconservers demonstrated understanding of finality. Fewer concrete operational

than preoperational children said they thought death might be a punishment for wrongdoing, but an equal number believed death could be caused by ill wishes or thoughts. While more conservers than nonconservers tended to attribute life to inanimate objects, this did not appear to influence their understanding of irreversibility and cessation.

Consistent with Koocher's conclusions (1973), Kalmbach proposed that when teaching children about death or when helping them deal with a loss, one cannot assume from age alone that they will or will not understand their finality. However, her analyses did not provide extensive detail. While she observed three levels of finality comprehension, she did not examine how the first two -- belief in death as temporary and belief in death as final but with continuing functioning-- related to level of cognitive development. In addition, she did not address children's understanding of universality and causality although she had included them in her questioning. Finally, she based her conclusions on several simple analyses rather than considering all her factors together so may have missed interactive effects of 2 or more variables on death concept development.

White et al. (1978) combined the theories of Vygotsky and Piaget and suggested that some death

concept components might emerge in a spontaneous manner while others may develop only through learning. They proposed that understanding of universality would develop spontaneously with the onset of concrete operations just as Piaget noted this stage was characterized by belief in universality of rules. However, they suggested that the components of irrevocability and cessation would develop independently of cognitive level.

They used three Piagetian conservation tasks and a story with questions about an elderly woman who died to assess the cognitive level and death concepts of children in Kindergarten to grade 4. Children's responses to the questions were analyzed both in relation to their grade level and ability to conserve. As they predicted, understanding of irrevocability and cessation were not significantly related to cognitive developmental level. While these components did tend to mature somewhat with age, less than 1/2 of the eldest subjects demonstrated accurate understanding.

Understanding of universality, however, seemed to be influenced by both cognitive level and age. While White et al. acknowledged that the two are, in themselves related, they claimed support for a cognitive developmental framework on the basis that approximately 2/3 of conservers demonstrated

understanding while the same proportion of nonconservers did not. In addition, they observed a dramatic increase in understanding between grades 1 and 2 (ages 6 to 8) and suggested that this marked the onset of the concrete operational period. They concluded then, that universality is a concept which, in Vygotsky's terms, is spontaneous in that it emerges when there is a structural transformation in the child's mental processes.

Orbach et al. (1985) found an interesting interaction of cognitive level, age, and general anxiety on children's understanding of death; however, they defined cognitive level in terms of demonstrated ability or intelligence. They found that, in general, brighter children at each age level (grades 1, 3, and 5) demonstrated more mature and realistic death concepts and that the impact of cognitive ability was greater for the understanding of animal death than for the understanding of human death. However, they also found that bright children who were highly anxious did not demonstrate as accurate an understanding as bright children who were less anxious. Of particular interest was the observation that bright first-grade children with little anxiety demonstrated a level of understanding equal to that of fifth-grade children. Orbach et al. concluded that this supported Yalom's (in

Orbach et al., 1985) suggestion that, given the basic cognitive tools, a child free of anxiety can understand death at a very young age.

Jenkins and Cavanaugh (1985-86) also defined cognitive level in terms of intellectual ability and hypothesized that brighter children would demonstrate more accurate and realistic death concepts. Using the Information, Similarities, Picture Arrangement, and Block Design subtests of the WISC-R as well as the Peabody Picture Vocabulary Test, they attempted to determine the degree to which cognitive ability could account for the variance in children's scores on a death concept scale designed by Derry. While visual/spatial ability did not contribute significantly, verbal skills relating to receptive language, general knowledge, and verbal concept formation accounted for a proportion nearly as large as that attributed to age.

Hornblum (1978), like Koocher (1973), compared the death concepts of children at Piaget's three stages. While she identified some children as transitional conservers if they provided correct judgements but incorrect explanations to one or more of her three conservation tasks, she included them in the preoperational and concrete operational groups. She incorporated three nonverbal picture sorting tasks into

the traditional interview-type format to investigate children's understanding of death's universality, inevitability, and irreversibility.

Analysis of her results indicated a marked shift in understanding occurring between the preoperational and concrete operational stages. Hornblum acknowledged, however, that neither mental age, conservation performance, nor understanding of time significantly improved upon the prediction made by age. Despite this, she suggested that her three age groups (4 to 5, 7 to 8, and 10 to 11) paralleled Piaget's developmental stages. The majority of children (75%) demonstrated understanding of both universality and inevitability on the nonverbal tasks by age 7 or 8 and on both nonverbal and verbal tasks by age 10 or 11. The youngest children (ages 4 and 5) did not consistently demonstrate understanding of any of the 3 components on either of the measures. While nonverbal and verbal expressions of understanding were related for all age groups, Hornblum, like Weininger (1979), noted that occasionally children seemed to demonstrate higher levels of comprehension on nonverbal tasks.

In conclusion, Hornblum suggested that age provides a good guideline for persons educating children about death. However, based on her observation that conservers tended to demonstrate more

mature death concepts than nonconservers, she also suggested that cognitive developmental level may prove to be a more important factor with larger, more varied samples. Finally, she proposed that her exclusion of six-year-olds from the study may have masked a transitional period in death concept development for she failed to observe a gradual progression from immature to mature concepts. While she did recognize that some children would demonstrate early but incomplete understanding of conservation, she included them in preoperational and concrete operational groups for analysis rather than investigating their death concepts separately. Because the move into the concrete operational stage marks a change in thinking, it would seem that investigation of a possible transitional period would be important to death concept research.

Cognitive developmental level was one factor explored in Townley and Thornburg's (1980) multivariate investigation, but it did not prove to be an influential factor as conservers and nonconservers demonstrated similar levels of understanding of death. They did propose partial support of Piagetian theory, however, for while only 1/2 of conservers demonstrated a high understanding of death, 4/5 of those demonstrating high understanding also conserved. They

suggested that reversibility, finality, and decreased egocentricity underlie both conservation ability and understanding of death, but that notions of conservation are easier for children to grasp.

Reilly et al. (1983) used a single conservation task to classify children aged 5 to 10 years as preoperational or concrete operational and compared their expressed beliefs in personal mortality. They suggested that, because more conservers than nonconservers demonstrated acceptance, conservation ability is a sufficient but not a necessary condition for understanding. Their study was limited by the fact that they used only 1 task to identify concrete operational thinkers and focused only on 1 of several death concept components for investigation.

Summary

The research into the relationship between level of cognitive development and level of understanding of death has produced varied and sometimes contradictory results. The inconsistencies may be due, in part, to variations in methods of classifying children as preoperational or concrete operational. Koocher's (1973), Hornblum's (1978), and Townley and Thornburg's (1980) inclusion of children who had passed one or two conservation tasks in their preoperational groups may

have contributed to the observation that some of these children hold reasonably mature death concepts. It may be that they were in transition between the two stages and had already developed some of the skills which would allow them to understand death more accurately.

The majority of the research, however, has pointed out that preoperational children are more likely to hold an inaccurate concept of death and that their concepts mature as they move into the concrete operational stage (Jenkins & Cavanaugh, 1985-86; Kalmbach, 1978; Kastenbaum, 1967; Koocher, 1973; Orbach et al., 1985). Proponents of such a theory (Hayes 1984; Stambrook & Parker, 1987; Tallmer et al, 1974) typically suggest that the emphasis on the perceptual, the present, and the self characteristic of the preoperational stage accounts for the common belief that death is temporary and reversible (Codden, 1977; Kalmbach, 1978; Koocher, 1973; Wass, 1984; Wass & Cason, 1984) and involves continuation of functioning (Wass & Cason, 1984). They suggest that it is not until the onset of the concrete operational stage that the child begins to understand time, space, rule universality, causality, and the experiences of others which, in turn, allow him/her to understand the finality, universality, and causality of death (Codden, 1977; Hayes, 1984; Hornblum, 1978; Kastenbaum, 1967;

Lonetto, 1980; Orbach et al., 1985; Wass, 1984; White et al., 1978).

While the cognitive developmental approach has received support in this apparent parallel between death concept maturity and both cognitive level (Hornblum, 1978; Kalmbach, 1979; Koocher, 1973; Reilly et. al, 1983; Sternlicht, 1980; White et al., 1978) and intellectual ability (Jenkins & Cavanaugh, 1985-86; Orbach et al., 1985), it has also received some criticism. Stambrook & Parker (1987) proposed that to assume that cognitive developmental level is a more important contributing factor than age may be erroneous as the two are highly related and difficult to separate. In addition, they suggested that the Piagetian approach may actually stifle inquiry as it may lead us to automatically assume, without investigation, that the preoperational child lacks the ability to understand death. The range of individual differences noted within a single cognitive stage or age group and the observation that some preoperational children appear to have relatively mature death concepts has led some researchers to suggest that other factors may be involved (Hornblum, 1978; Kalmbach, 1978; Stambrook & Parker, 1987). Several factors have been suggested, but the one which perhaps has sparked the most interest is that of experience.

D. **Experience**

That experience may play an important part in a child's conceptual development seems consistent with a cognitive approach. Piaget (in Ferguson, 1978) emphasized the role of adaptation in intellectual and conceptual development and proposed that organization and re-organization of experiences leads to that adaptation.

Some researchers in the death concept area have adopted a similar position and have suggested that experiences with death allow the child to make generalizations which enable him/her to develop a realistic and mature understanding of death (Bolduc, 1972; Weininger, 1979). Weininger (1979) suggested that the concepts held by young children are, "...mostly incomplete and inaccurate because they have been built on limited time and experience." (p. 395). Thus, as the child grows older, enters school, and begins to make new relationships, his/her understanding of death increases rapidly as he/she is more likely to encounter the deaths of pets, other animals, and persons, and/or discussions on death - all of which contribute to his/her knowledge (Atwood, 1984; Hornblum, 1978; Tallmer et al., 1974).

The research in this area has not been extensive and has not always been consistent in terms of its

findings. Several studies have found evidence for an experience/death concept relationship, but have used varying methods and approaches to study it. In some cases, a relationship has been proposed merely on the basis of an observed trend in the research data. For instance, Gartley and Bernasconi (1967) observed that children in their study who reported having experienced a death in the family were better able to verbalize their responses to death concept questions than were other children. They also noted that the responses of an undertaker's child were different and more advanced than those of his same age peers, and suggested that death experience may serve to enhance understanding.

In other cases, the effect of death-related experiences has been studied in relation to a limited number of death concept components or has been merely one of several factors explored. Reilly et al. (1983) suggested that perhaps only certain elements of the death concept are influenced and focused on understanding of personal mortality. They studied children ages 5 through 10 who had experienced either loss of a significant other through death, loss of a parent through separation/divorce, or no loss. Analysis of the total subject group and of the 5 and 6 year-olds alone revealed that a greater proportion of children who had experienced loss through death

demonstrated understanding than children who had experienced either separation or no loss. They concluded that death-related experiences are neither necessary nor sufficient for such understanding, but suggested that they may serve to speed up the developmental process of death concept aquisition.

In a study designed to compare the development of concepts of death, causality, and proportion in emotionally disturbed and nondisturbed children, Hurst (1980) looked at the effect of loss prior to 5 years of age. He found that, in general, children's concepts advanced with age, but that emotional disturbance served to retard their development and that experience of loss served to advance their understanding of death only.

Weber and Fournier (1985) investigated the effect of children's active participation in death-related activities on their understanding of death as part of a study on family structure and bereavement. They focused on several families who had experienced the death of a relative, questioned parents as to the degree to which their children had participated in family and cultural rituals associated with that death, and interviewed the children using Koocher's (1973) four death concept questions. While all children had had the common experience of having a family member

die, they did not all exhibit the same level of understanding of death. Children who had been involved in many activities such as touching the body, talking about death, visiting the funeral home and/or grave, and attending the funeral/memorial service demonstrated more realistic and abstract views of death than children who participated in fewer or no such activities. They concluded that allowing children to take part in bereavement rituals with the rest of the family may provide them both cognitive and emotional support.

While Weber and Fournier's observations suggest that it may not be simply the experience of someone dying that serves to enhance children's concepts of death, their study leaves some questions unanswered. They interviewed children ages 4 through 17, but did not determine whether the degree or impact of ritual participation is equivalent across all ages. Similarly, they did not include a comparison group of inexperienced children to determine if the death of a family member alone serves to enhance death concepts.

Few researchers have focused solely on the effects of death experiences in their studies. Bolduc (1972) compared concepts of children aged 9 to 14 who had and had not experienced parent and sibling loss. Children were questioned about their experiences with several

aspects of death and asked to respond and explain their responses to 6 hypothetical death situation stories. Their responses were categorized in a hierarchial manner as descriptive, causal, or inferential with each level depicting higher order thinking about death.

Results indicated that 11 to 14 year-olds who had experienced parent or sibling loss demonstrated better understanding of death than their inexperienced peers. Little effect was noted for the 9 and 10 year-olds. Experienced children seemed more willing to discuss death, showed earlier recollections of death, and expressed sorrow more frequently.

While children were matched on sex, age, intellectual ability, and socioeconomic status, Bolduc neglected to control for level of experience other than parent or sibling death and found that an equal proportion of both groups had attended funerals, talked of death in religion classes, and had encountered other deaths of relatives and/or friends. She acknowledged that this was a limitation of her study and recognized that such experiences would be likely to contribute to death concept development. She concluded that experience centres the child's attention on the event and leads to questioning and learning, but stressed the importance of considering the meaning of the experience as the death of a parent or sibling may not have the

same meaning to the child as the death of relatives, friends, or others.

Kane (1975) defined "experience" more specifically than Bolduc (1972) and looked at how it influences the development of individual death concept components as well as the total concept. Children ages 3 to 6, 7 to 9, and 10 to 12 were classed as "experienced" if, after 18 months of age, they had known one intimate (parent, sibling, close relative, friend) or four non-intimates who had died, had attended at least one funeral, or had seen at least one dead person. Children who had had none of these experiences or had experienced them prior to 18 months of age were classed as "non-experienced." Comparison of their death concept scores showed that experienced 3 to 6 year-olds demonstrated higher-level concepts of death than their inexperienced peers, but that 7 to 12 year-olds held mature concepts regardless of prior experience. A greater percentage of experienced than non-experienced children demonstrated complete presence of her various components except Realization which was held by all subjects. The greatest difference between the two groups was in their understanding of Dysfunctionality, Causality, and Insensitivity.

Not all researchers have observed that death-related experiences enhance understanding of

death. As an aside to their study, Childers and Wimmer (1971) asked children ages 4 to 10 if they had ever seen anything or anyone dead. They failed to observe a consistent pattern between such experiences and understanding of death and concluded that, without statistical analysis, a relationship could be neither accepted nor denied.

Jenkins and Cavanaugh (1985-86) briefly evaluated the effects of experience in a study designed to investigate a death concept scale designed by Derry (in Jenkins & Cavanaugh, 1985-86). Derry had observed that children who had had death-related loss experiences and/or non-death separation experiences demonstrated more mature death concepts than children who had not experienced such losses. Jenkins and Cavanaugh looked at three different levels of experience (loss of a familiar person, loss of a pet or nonfamiliar person, and no death-related experience), but found no effect between them and death concepts of 6 to 12 year-olds.

Kalmbach (1978) focused on how experiences with death might influence the development of children's understanding of death's finality, but, like Jenkins and Cavanaugh (1985-86), observed no difference between experienced and non-experienced children. She recognized that her findings were not conclusive for she had not controlled for the number and type of death

experiences. In addition, she had combined preoperational and concrete operational children into a single group for this comparison and, therefore, selective effects may have gone unnoticed.

Tallmer et al. (1974) observed no effect of either death-related experiences or parent explanations of death on concepts held by children ages 3 to 9. However, their study had several limitations so results are questionable. Like Bolduc (1972), they did not define what constituted "experience" and found that children reported a wide variety of contacts including death of pets, distant relatives, and grandparents. The adequacy of parent explanations also was not evaluated so there was no means by which to determine whether children benefit from accurate information or whether parents tend to avoid discussion of many important aspects of death. All children were combined into one group for analysis so possible effects for a single age group or cognitive level could not be assessed. And finally, assessment of death concepts through TAT stories, incomplete sentences, and questions on inanimate and animate objects may not have revealed the entire span of children's knowledge or understanding of death.

Seide (1983) used three hypothetical death event stories with questions to assess the death concepts of

experienced and inexperienced second-graders, but found that death experiences seemed to have little effect alone or in interaction with other variables (sex, religious background, amount of television viewing, and number of siblings). However, he proposed that further research is warranted as some of his data suggested that different types of death experiences may not influence understanding in the same manner.

Townley and Thornburg (1980) observed a trend unique to the rest of the research in this area as their data suggested that experienced children hold less mature death concepts than non-experienced children. While their study was designed primarily to investigate the effects of age, sex, religion, and ability to conserve, their interview procedure included questions to assess whether children had attended a funeral, seen a dead person, known someone who had died, or had had a pet die. This trend was observed both for the total sample of children ages 6 through 12, and for the eldest group of children alone (grades 5 and 6); however, neither was statistically analyzed.

Summary

Results from studies investigating the effects of death-related experiences on developing death concepts have been inconsistent and inconclusive. Some studies

have found that children's understanding of death tends to increase with experiences such as loss of a loved one (Bolduc, 1972; Gartley & Bernasconi, 1967; Hurst, 1980; Kane, 1975; Reilly et al., 1983) and participation in funerals and other griefwork processes (Weber & Fournier, 1985). Other studies have suggested that experience plays little, if any, part in a child's understanding (Jenkins & Cavanaugh, 1985-86; Kalmbach, 1978; Seide, 1983; Tallmer et al., 1974). And one study has even suggested that death-related experiences retard the development of a mature and realistic death concept (Townley & Thornburg, 1980).

This inconsistency is likely a reflection, in part, of the variation in experimental procedures--different definitions of experience, failure to control for number and type of experiences (Kalmbach, 1978; Tallmer et al., 1974), and disregard for possible effects of television viewing (Atwood, 1984; Codden, 1977; Stambrook & Parker, 1987). In addition, it may be that the failure of some studies to find an experience effect is due to the comparison of experienced and non-experienced children with disregard for individual age groupings or developmental levels (Jenkins & Cavanaugh, 1985-86; Kalmbach, 1978; Tallmer et al., 1974; Townley & Thornburg, 1980). For a complete investigation, attention must be directed to

determining possible interaction effects of experience and other factors.

E. **Interactive Effects**

Until recently, researchers studying death concept development have focused on only one, or perhaps two, of the variables discussed. Primarily, focus has been on the effects of age and, occasionally, the effects of age and level of cognitive development or the effects of age and experience. The simultaneous investigation of all three variables or the combination of cognitive developmental level and experience with death had not received attention.

In 1985, Hildebrand examined the effects of age, cognitive level, and experience in a study based on that conducted by Kane (1975). She studied 88 Mennonite children aged 5 years, 7 months to 10 years, 11 months. Three-fourths of the children had had experience with death in at least one of three ways: the death of a significant other, attendance at one or more funerals, and/or had seen at least one dead person. The remaining quarter had had no such experience. Prediction responses to three Piagetian-type conservation tasks (mass, weight, and volume) were used to classify children as preoperational or concrete operational and to assign

them to 1 of 4 groups. Those who responded incorrectly to all three tasks were classed as preoperational (group 1); those who responded correctly to all three tasks were classed as concrete operational (group 4); and those who responded correctly to either one or two tasks were considered to be at the onset and mid-concrete operational stage (groups 2 and 3). All children answered questions regarding their understanding of and experience with death.

Hildebrand's results were particularly interesting and may perhaps provide some explanation for the conflicting results of previous studies. Consistent with much of the past research, she observed a general increase in concept maturity with both age and cognitive developmental level. Concepts appeared to develop gradually until age 7 and/or the onset of the concrete operations, then became more adult-like.

While concrete operational children (groups 2, 3, and 4) possessed mature death concepts regardless of their prior experience or inexperience with death, there was a marked difference between the concepts of preoperational children with experience and preoperational children without experience. Preoperational children who had experienced death in the manner defined above demonstrated significantly advanced concepts compared to preoperational children

without such experience such that their understanding was equal to that demonstrated by concrete operational children. Kane (1975) observed a similar trend for children aged 3 to 6 in her study.

Hildebrand noted that replication of her study was important as her results could be generalized only to a very selective group of children -- those of Mennonite background who have received extensive religious training and who are typically included in the occasion of death (viewing the body, attending funerals etc.). She also recognized that her observation of a gradual increase in concept maturity prior to age 7 was limited by two factors: (1) her youngest subject was 5 years, 7 months, and (2) this child and all others up to and including age 7 years, 11 months, were grouped together. She suggested that children both older and younger and of different religious/cultural backgrounds be included in future research. In addition, she noted some methodological limitations that may have affected her results and provided some remediation suggestions.

Hildebrand's (1985) results receive some support from a study (Ryan, 1984) investigating death concepts of preoperational children who had and had not experienced the death of a sibling. Like Hildebrand, Ryan found that children with such experience demonstrated a significantly better developed

understanding of death than those with no such experience. Although these results appear to corroborate those of Hildebrand's, methodological limitations render the results somewhat questionable and in need of further investigation. First, Ryan's sole focus on sibling loss prevented the exploration of effects of other death experiences on death concept development and, second, her use of age (4 to 7) rather than a developmental screening process to classify children as preoperational may not have been an effective method of identification.

F. Statement of the Problem

The preceeding investigations provided the background for the development of the present study. The work of Kane (1975) and Hildebrand (1985) in particular initiated the research questions and hypotheses.

The purpose of the present study was to explore in greater detail the interactional effect of death experience and cognitive developmental level on children's understanding of death observed by Hildebrand. The study was specifically designed to replicate the finding that death experience advances the preoperational child's understanding of death (Hildebrand, 1985; Ryan, 1984) and to extend the

research in the area by exploring the effects of varying degrees of death experience on this group of children and by re-examining the effects of age. While Hildebrand suggested that exposing children to death information will help to ensure accurate understanding and emotional well-being and will prepare them for times of crisis, she did not specifically investigate the degree to which such information actually does influence or enhance the child's understanding of death. It seems that this is important for counsellors, educators, and parents striving to answer young children's questions in an attempt to prepare them for possible future losses.

H. **Hypotheses**

1. Preoperational children who have experienced the death of an intimate or familiar person will have a significantly higher concept of death (CD) score than preoperational children who have experienced the death of a pet and/or have discussed death, or preoperational children who have had no experience with death.
2. Preoperational children who have experienced the death of a pet and/or have discussed death with a parent/adult will have a significantly higher CD score than preoperational children who have had no experience with death.

3. There will be a sequential increase in children's CD score with an increase in age.

CHAPTER III

Methodology

The present study looked at varying levels of death-related experiences on the preoperational child's understanding of eight death concept components outlined by Kane (1975). Separate analyses were conducted to determine the degree to which this study also supports findings of past research on age-related trends.

A. Subjects

The sample consisted of 23 children ranging in age from 3 years, 1 month to 7 years, 1 month. All children attended daycares in Edmonton, Alberta either on a full-time or part-time basis and represented a variety of religions, cultures, socioeconomic levels, and family compositions. An approximately equal number of males and females participated-- 12 girls and 11 boys. All children demonstrated preoperational levels of thought and an average vocabulary for their age, and were assigned to one of three groups on the basis of the types of experiences they had had with death. (see TABLE 1)

TABLE 1

Composition of Sample by Age, Sex, and Experience

	Group 1		Group 2		Group 3	
	High		Moderate		Minimal	
Age	M	F	M	F	M	F
3-0 to 3-11	1					1
4-0 to 4-11	1	2	1	2	2	2
5-0 to 5-11	1	2	4	2	1	
6-0 to 6-11						
7-0 to 7-11		1				

B. **Selection of Subjects**

Obtaining subjects was one of the most difficult parts of this project. The small resulting sample (n= 23) is indicative of some of the difficulties doing research with children as well as, perhaps, some of the hesitation and denial with which people tend to approach the topic of death.

Obtaining consent for participation for a sufficient number of children meeting the selection criteria was difficult. Initial contacts were made to 223 daycare directors in the city of Edmonton. They were approached by letter informing them of the nature and procedure of the study and were asked to contact the researcher if they were interested in having their organization involved. Only 6 directors responded (3%).

A second level of consent was that obtained by the parents. Approximately 180 letters and parental consent forms were sent home with the children. Of these, 55 were returned to the directors with approval for participation. Consent was obtained for an additional 3 children from parents associated with daycares which had not expressed an interest in the study. Of these 58 children, 4 were ill on the days selected for interviewing; 5 decided they did not want to participate; 2 were discarded because they were 8

years old and thought to be beyond the preoperational stage. A total of 41 children were interviewed; 18 of these were excluded from the main sample because they were either deemed concrete operational rather than preoperational and/or because they scored above or below the "average" range identified for the PPVT. Eleven were classified as concrete operational and the remaining 7 obtained above average or below average PPVT scores. The remaining 23 children constituted the sample.

C. **Site**

Interviews were conducted within a six-week period in March and April of 1989. Because it was felt that some parents might more readily consent to having their child(ren) participate if he/she were to be interviewed in his/her own home, they were given the option of a home or daycare setting. The majority of parents, however, chose the daycares (96%) for the site of the interview. Parents who requested their own home be used (4%) typically expressed a desire to be with their child immediately following the interview in the event that he/she might have any questions or concerns.

In the daycare settings, children were interviewed in rooms or offices that were temporarily vacant and relatively free from interruptions. In home settings,

parents provided living or dining room space and, in the majority of cases, did not become directly involved in the procedure. For the most part, children in both settings seemed interested and able to attend to each of the tasks presented.

D. Design of the Study

Intelligence

A measure of intelligence was included as a matching variable in an attempt to control for variances between subjects within the single cognitive developmental stage studied. The Peabody Picture Vocabulary Test (PPVT), Form M, was administered to each child as a quick screening of cognitive abilities, recognizing that the test is limited to an assessment of a single component of intelligence -- verbal intelligence. This measure was selected on the bases that verbal intelligence has been shown to relate to death concept development (Jenkins & Cavanaugh, 1985-86), it has been used by researchers in the death concept area (Jenkins & Cavanaugh, 1985-86; Hornblum, 1978), it is non-threatening, and it has norms for the entire span of subject ages.

Standardized instructions and procedures outlined in the PPVT manual were used to present the task to all

subjects. Children were identified as being "average" in intelligence if their score fell between one standard deviation below and above the mean (85 to 115). Those whose scores fell beyond these limits were designated as "below-average" or "above-average" and were excluded from the main statistical analysis.

Cognitive Development

On the basis of past research (Hildebrand, 1985; Koocher, 1973; Sternlicht, 1980), three Piagetian conservation tasks were used to determine whether or not children were in the preoperational stage of cognitive development. Children were first required to demonstrate understanding of the concepts "same/different" and "more/less" (Hornblum, 1978) using picture flashcards (see Appendix A) to ensure they would understand the conservation questions asked. All children participating passed this initial task. Each child was then administered both a test trial and a check trial for each of the amount, weight, and volume tasks (see Appendix B) and was asked to justify each of his/her responses or judgements.

For the purpose of the present study, children were identified as preoperational if they provided incorrect responses and justifications for all six

trials or if they provided correct responses to two or fewer test or check trials and incorrect justifications for all of the trials. Those children who were able to provide corrects responses with sufficient justifications to any one of the ten trials were considered concrete operational and were excluded from the main statistical analysis. Details of the scoring procedure used for prediction and justification responses are found in the scoring section of this chapter.

Experience

Each child was assigned to one of three groups on the basis of their prior experiences with death and death-related events. Information on such experiences was obtained from children's responses to a group of questions (see Appendix C) adapted from that used by Hildebrand (1985) (see Appendix D) and was later verified by the parents by phone.

The first group consisted of children who were thought to have had a high level of experience with death. To be included in this group, children must have experienced at least one of the following after the age of two years: (1) death of a significant other such as a parent, sibling, grandparent, close relative,

or close friend, (2) death of a familiar person such as family friend, neighbor (3) attendance at at least one funeral, and (4) seeing at least one dead person.

The second group consisted of children who were thought to have had a moderate level of experience. To be included in this group, children must have experienced at least one of the following after the age of two years: (1) death of a family pet (2) religious or educational instruction on death (3) conversation or discussion with parents or other adults regarding death.

The third group consisted of children who were thought to have had a minimal level of experience. Children in this group had none of the above experiences, but may or may not have seen death on television.

Concept of Death

The prime concern of the present investigation was to assess what the preoperational child thinks death to be. In accordance with the research of Kane (1975) and Hildebrand (1985), the death concept interview was designed to study the components of universality, irrevocability, immobility, dysfunctionality, insensitivity, appearance, separation, and causality.

Kane's components of realization and personification were not included as she found that all children aged 3 and over realized death and that no children personified death.

Consistent with other researchers in the area (Bolduc, 1972; Gartley & Bernasconi, 1967; Kalmbach, 1978; Kane, 1975; Swain, 1979), the interview was semi-structured. It consisted of predetermined guiding questions and unstructured follow-up of responses. This type of procedure was thought to introduce some measure of standardization into the procedure as well as allowing for a Piagetian-type format which seems relevant given the focus on the preoperational child. Bolduc (1972) and Kalmbach (1978) suggested, as did Piaget, that the child's initial response to a question may be significantly different from the way in which he/she reasons about those questions and that it is this underlying reasoning that explains their thinking. They advocated use of a Piagetian-type "clinical method." The combination format of the present study allows for some commonality of content, but also emphasizes individual justification of responses.

The structured portion of the interview was developed from that of Hildebrand's (1985) (see Appendix E). Although exact replication of her procedure would be useful to obtain reliability and

validity data, adaptations were made in attempts to make questions clear and concise and more appropriate for the younger ages (3 and 4 years) involved in this study. In some cases, this adaptation involved only the use of Hildebrand's alternate wording rather than her original. A few additional questions were added to examine children's understanding of some death concept components in more detail and to help better focus the answers of the youngest children. Each group of questions from 2 to 9 (see Appendix F) was designed to examine a separate death concept component.

Children's responses for each component were scored "2", "1", or "0" depending on the degree to which they reflected mature and adult-like understanding. The sum of the eight components for each child was considered to represent his/her current concept of death (CD) with a maximum possible score of 16. A description of each component and its scoring criteria are provided in the scoring section of this chapter.

E. Procedure

Daycare directors in the city of Edmonton were contacted by letter regarding their interest in participation in the present study (see Appendix G). Participating directors were provided with letters for

the parents informing them of the nature of the study, the procedure, provisions for confidentiality, and precautionary measures for dealing with any children who might become upset during the interview (see Appendix H). Interested parents were asked to sign a consent form indicating their permission and choice of interview site, and to return it to the daycare director (see Appendix I). Parents who had requested that their child(ren) be interviewed at daycare were informed as to the day the interviews would be conducted. Parents who had requested home interviewing were contacted to arrange a convenient date and time. All parents were given the opportunity (in person or by phone) to discuss their child(ren)'s responses following the completion of the interviews. The majority of parents seemed very interested and said they appreciated the followup.

The interview consisted of three parts which were ordered in such a way as to be non-threatening and to hold children's interest. Children were told that the examiner was doing a project for her school and that she needed some children to help her. They were informed that they would be looking at some pictures, answering some questions, and doing some things with playdough and that a tape recorder would be used to tape their voices. All children were given the

opportunity to listen to portions of the tape when the interview was finished.

Children were first shown flashcards depicting the concepts of "same/different" and "more/less," and were asked to choose one of two pictures that best illustrated the concept the examiner asked about. Following this, children completed the PPVT. These two tasks were chosen as the first tasks because they were considered non-threatening, easy, and fun for most children and gave the examiner an opportunity to establish some rapport before moving into tasks which required children to speak and express their opinions.

The second portion of the interview consisted of the predetermined questions regarding children's understanding of the eight death concept components and their experiences with death and death-related events. Children were informed at the start that they would be asked some questions about things that are alive or living and not alive or dead. They were told that there were no right or wrong answers, that they did not have to answer any question that might bother them, and that it was okay to guess if they were not sure of the answer. The presentation of the interview questions followed a predetermined order. Alternate questions were used when a child did not seem to understand the wording of the initial question or when his/her answer

required clarification or expansion. Children's responses were typically investigated in greater depth with additional unstructured questions. Interviews were tape recorded and later transcribed verbatim for scoring.

The third and final portion of the assessment procedure consisted of the three conservation experiments. These tasks were chosen as the completion of the interview because they were fun for most children and because it was thought that it might be difficult to get children to concentrate on the rest of the interview if they had been administered first. Children were asked to predict if changing the shape of one of two play-dough balls would change its original amount, weight, or volume and were asked to justify their predictions. All responses were recorded by the examiner.

Children were then thanked for helping the examiner with her project and were allowed to listen to some of their answers on the tape if they so wished. All parents and daycare directors were offered and received a summary of the findings once the research had been completed.

F. Scoring

Conservation Task Scoring Procedure

The scoring procedure for the conservation tasks was adapted from that used by Hornblum (1978). Children were asked to make both prediction and justification responses to both a test trial and a check trial for each of the three tasks.

A correct conservation or prediction response to a test trial involved an acknowledgement that the amount, weight, and or volume of the playdough had not changed as a result of manipulation alone. A correct response to a check trial involved recognition that the playdough ball which had been added to would always be "more than" the one not added to regardless of manipulation.

A correct justification for each test trial response was defined according to Hornblum as involving one or more of the following concepts:

1. addition/subtraction - the amount of both substances remains equal following manipulation because nothing was added or subtracted.
2. compensation - the amount of both substances remains equal following manipulation because one dimension compensates for another e.g. the sausage-shaped

playdough is longer but thinner; therefore, it is the same as the ball.

3. reference to sameness of materials - the amount of both substances remains equal following manipulation because they are the same materials and have changed only in shape or form.
4. reference to previous state of equality - the amount of both substances was equal at the start of the trial so remains equal following manipulation.
5. reversibility - that the amount of both substances remains equal following manipulation can be shown by returning the manipulated one back into its original form in which it was the same as the other.
6. relevance of transformation - a recognition that the amount of both substances remains equal following manipulation because only the shape or appearance was altered.

A correct justification for each check trial response involves the recognition that, because the two substances were made different in their initial presentation, they will remain different regardless of manipulation. Inclusion of any of the following concepts will be considered acceptable:

1. addition/subtraction - one substance is "more than" the other following manipulation because it was added to at the beginning of the trial.

2. compensation - one substance remains "more than" the other following manipulation despite the fact that the other may look different on one dimension e.g. longer, thinner.
3. reference to sameness of materials - one substance remains "more than" the other following manipulation because they are the same materials and only differ in shape or form.
4. reference to previous state of inequality - one substance remains "more than" the other following manipulation because it was "more than" the other in the initial presentation. Children justifying a correct response with "because it's bigger" were considered incorrect if they could not explain their answer further.
5. reversibility - that one substance remains "more than" the other following manipulation can be shown by returning the manipulated one back into its original form in which it differed from the other.
6. relevance of transformation - a recognition that only the shape or appearance of one was changed and that they still differ in amount as they did in their original presentation.

Children were considered to be preoperational if they gave incorrect judgement and justification

responses to all test trials and check trials or if they gave correct judgement responses to two or fewer test or check trials and incorrect justifications for all trials.

Death Concept Scoring Procedure

Children's responses to death concept questions were scored using a standardized procedure developed by Kane (1975) and later used by Hildebrand (1985). Kane proposed three response categories based on standard adult ideas of death. For each death concept component, responses were scored "2", "1", or "0" reflecting complete presence, incomplete presence, or absence of the component. A particular component was regarded as being present in complete form if it was identical to that commonly held by adults reflecting understanding and acceptance; as being present in incomplete form if it was unlike that commonly held by adults or showed inconsistency within the same component, and as being absent if it was not represented at all (no answer, shrugging, "I don't know" etc.). The total score of all eight components constituted a measure of a child's current concept of death. Each component was scored separately so any logical inconsistencies between components was not reflected in the total death concept score.

All protocols were scored independently by both the examiner and another rater to provide a measure of reliability for the scoring system. Definitions of each component and the scoring criteria used are detailed below.

Universality.

The component of universality refers to the recognition that all people are mortal. Children's understanding was assessed with the following questions: "Can people stay alive forever?", "Does everybody die or only some of the people?", "Do you think you will die some day?" Responses which suggested that the child understood that every person dies including him or herself were given a score of "2". For example: "Everyone dies.", "They get old and sick and then they die.", "All of the people." Responses which indicated that the child believed there were exceptions and that some people would never die were given a score of "1". For example, "No <I won't die> because I have to...I have to umm look after my brother. He will cry if I die.", "Only some of the people. All the people that don't drink beer <won't die>. People that live in cities don't.", and "Moms and Dads and children <won't die>." Responses which were logically inconsistent were also assigned a score of

"1". For example, "Everyone dies...when they're not old they won't."

Irrevocability.

The component of irrevocability refers to the understanding that death is permanent and that the dead cannot return to life and was assessed with the question, "Can you make dead things or people come back to life?" Responses which reflected acceptance of death as irreversible were assigned a score of "2" and included such comments as, "No... only if you take them to the hospital when they're still alive", "No, cause their hearts stop beating.", and, "When dead people are dead they never come back and other people start to grow. <babies born>." Some children cited Biblical examples of return to life such as, "God can make Jesus dead and Jesus can come alive," or mentioned that magic or a special power could make it happen. Such responses were assigned a score of "2" if the child indicated that he/she understood these to be rare events and that ordinary people were unable to make them happen. A score of "1" was given to responses which suggested that the dead may return to life. For example: 'You have to send them to the Dr.... give them a needle.", "By a wand. With power. I think me and you

could do it.", and "Maybe get their body and try to fix their heart."

Immobility.

The component of immobility refers to notions concerning the dead and movement and involves the recognition that bodily movement ceases after death. Children's understanding was assessed with the following questions: "What are some things that people who are alive can do?" and "Can someone or something that has died do any of those things?" A score of "2" was assigned to such responses as, "They can't do anything--all they do is stay here. They stay still.", "They would do nothing--they can't even see.", and "Just lay down and be dead." Responses which indicated the child believed the dead could move some part of their bodies or were involved in specific activities were assigned a score of "1". For example, "He could play with toys or you could play with a bunny.", "Well, some people could go to the hospital.", and, "I think a dead man might play and move."

Dysfunctionality.

The component of dysfunctionality involves the recognition that bodily functions other than the senses cease after death and was assessed with the questions, "Do people's bodies work after they die?", and "Can

they eat, drink, breathe, or make their hearts work?" Responses which indicated that any such functions are not present after death were assigned a score of "2". For example, "Their bodies are dead.", "No. If they die they don't do something. They do nothing.", and "No. Your soul leaves you." Children who suggested that the body could continue some type of function were given a score of "1": "<bodies work> after they're done dying.", "Yes, well you could talk to someone in the heart <and it would work>".

Insensitivity.

The component of insensitivity involves consideration of the sensory functions of the dead and the recognition that, in addition to the cessation of bodily movement and function, the brain also does not work after death. The questions used to assess children's understanding focused on the five senses and memory, dreaming, and thinking. A score of "2" was given if a child demonstrated understanding that all sensory functions cease after death. For example, "No (query) Cause their spirit goes to heaven." A score of "1" was given if a child indicated that one or more of the aforementioned functions continued after death. For example, "If there's a bird making noises <he could

hear>', "Only if it <the wind> blows on him really hard he might feel", and "<he would feel cold> 'Cause he would be out there all day long." Several children who recognized that the five senses cease, but said they thought that dead people might dream or think, also were given a score of "1".

Appearance.

The component of appearance focuses on how the dead look and involves the recognition that there is a noticeable change in appearance after death. Children's understanding was assessed with the questions, "How do you know when someone is dead?" and "What do they look like?" A score of "2" was assigned to responses which indicated that, in some way, the dead were distinguishable from the living. These included such comments as, "They look like they're dead." but excluded differences which were not exclusively characteristic of dead people. Children who focused on position only (lying down), or limited their explanation to other components (dysfunctionality, immobility), or gave differences which were not typical of all dead persons were given a score of "1". For example, "Because they are laid down and closing their eyes.", "They wouldn't be able to move and they wouldn't be able to do anything.", "They

look the same as people.", "Bony, blood.", "They have blood.", "I think they would have a paper on their tummy. I think a paper heart on their tummy like for Valentines", and "Some they don't have their body on."

Separation.

The component of separation involves a spatial dimension and refers to ideas regarding the location of the dead. Children's understanding was assessed with the question "Where do people go after they die?" A score of "2" was assigned to responses which acknowledged that the dead are absent and in some location separate from the living. For example, "Well, they go in the graveyard.", "Up to Heaven. Up to the sky up to Jesus." Children who suggested that the dead go to places typically associated with the living were given a score of "1". For example, "They go at Superstore. And they go at a building. And West Edmonton Mall.", "To the lake. I think to the panda bears.", and "In the hospital. Shopping."

Causality.

The component of causality refers to beliefs about what causes people to die and was assessed with the question, "What makes people and other things die?" Children who demonstrated understanding that death is due to a function, malfunction, or dysfunction and,

therefore, is internal, obtained a score of "2". Most children in this category mentioned a combination of internal and external causes and were also awarded a "2". For example, "Sick. When you accidentally shoot them.", "'Cause they get older and older 'till they're a hundred." Children who limited their responses to causes external to the person or who mentioned illogical reasons were awarded a score of "1". For example, "Sometimes if people kill some people by mistake or if they kill themselves. If they electrocuted themselves.", "A gun. And a guy's finger on the thing.", "Accidents. When you run into the cars.", "'Cause they smoke.", and "If you're eating too much candy you will die. When you work too hard."

CHAPTER IV

RESULTS AND DISCUSSION

The development of the preoperational child's conceptual understanding of death was the focus of the present study. A group of children were identified as preoperational and of average intelligence by their performance on three Piagetian-type conservation tasks and the PPVT, then were asked several questions about death. Their level of understanding of eight different components of death (Kane, 1975) was investigated in light of their prior experiences with death and death-related events, and their age. This chapter provides an overview of the nature of conceptual understanding demonstrated by the group as a whole and then presents a summary of the analyses used to address the three hypotheses. The findings are discussed in relation to those of previous research.

A. The Preoperational Child's Understanding of Death

Children's responses to death concept questions were scored to provide some indication of their conceptual understanding of death. For each of the eight death concept components examined (Kane, 1975), a score of "2" was assigned if responses reflected adult-like understanding (complete presence); a score of "1" was assigned if responses reflected inaccurate

and unrealistic notions (incomplete presence); and a score of "0" was assigned when there was no response or an "I don't know" response (absence). Children's individual component scores were summed to give a concept of death score (CD) which was assumed to provide some indication of their current level of understanding. The range of possible scores extended from 0 to 16. The underlying assumption that death concepts are linear entities may be, in part, erroneous, for it is important to note that a mid-point score of 8 could reflect a realization of all components, but an incomplete and inaccurate understanding of every one of them.

When the total sample was considered, a number of observations were noteworthy. First, the majority of children were unable to define the terms "dead" and/or "death." Most of them simply used the same word(s) for their definitions or as part of their definitions. For example, "dead" was characteristically defined as, "You die.", "You dieded.", and "Dead means someone is dead". Similarly, "death" was defined as, "You're dead.", "That something's dead.", and "That you want to die or something like this." Some children focused on a single aspect of death such as cause, immobility, or cessation. For example, "dead" was sometimes defined as "It means your heart stops beating", "Blood.", "It

means when you get killed." and "death" was defined as "When you're dead you can't do anything." A few children provided reasonably accurate definitions which focused primarily on the fact that "dead" is the opposite to "alive." Secondly, a score of "0" was rarely assigned. Nearly all children had some notion about each of the eight components whether it be accurate or inaccurate. Absence of response occurred only to questions assessing understanding of the components of Separation and Causality and, in each case, were provided by only 2 out of the 23 children.

Concept of death scores (CD) for the total group ranged from 7 to 15 with a mean of 11.57. This mean score reflects a relatively limited concept of death with adult-like understanding of, on average, only 3 to 4 of the 8 individual components. A summary of proportions of children demonstrating complete presence, incomplete presence, and absence of components is provided in TABLE 2.

Examination of the table indicates that preoperational children as a group hold immature and unrealistic concepts of death. In fact, using Kane's (1975) 75% criterion, they really only had a clear understanding of the component of Immobility - the realization that the dead cannot move. The realization

TABLE 2

Percentage of Children Demonstrating Complete Presence, Incomplete Presence, and Absence of Components

Component	Percentage		
	Complete Presence	Incomplete Presence	Absence
Universality	47.8	52.2	0.0
Irrevocability	56.5	43.5	0.0
Immobility	78.3	21.7	0.0
Dysfunctionality	73.9	26.1	0.0
Insensitivity	26.1	73.9	0.0
Appearance	8.7	91.3	0.0
Separation	56.5	34.8	8.7
Causality	26.1	65.2	8.7

that the dead no longer function biologically (Dysfunctionality) was demonstrated by close to 75% of the children as well. Approximately 1/2 of all children demonstrated understanding of Universality, Irrevocability, and Separation while very few seemed to grasp notions of Insensitivity, Causality, and Appearance. Although each component appeared to be understood by a number of children, consideration of their complete interview protocols indicated that their concepts were unstructured and often illogical. It was very common for children to contradict themselves during the interview indicating that their understanding was really not fully developed regardless of their "2"-point answers. For instance, most children expressing belief in personal mortality said they thought they would die when they were very old; however, very few of them mentioned old age as a cause of death when later asked about the reasons people die. Occasionally such contradiction occurred within a single component. Many children said they believed that all people die then said they themselves would not die or they said they knew dead people could not do anything then proceeded to mention some of the activities/functions they thought they might carry out.

All responses were scored independently by two raters to obtain a measure of reliability and

confidence (see TABLE 3). The ratings were compared for each of the individual death concept components and for the total responses of the sample as a whole. Results indicated a high degree of consistency within all but one of the eight components as valued ranged from 0.9139 to 1.0000. The value for the component of Appearance was considerably lower - 0.4054 - and suggests that Kane's (1975) and Hildebrand's (1985) scoring criteria may not be sufficiently clear to reduce discrepancies arising from individual judgement and interpretation. The raters achieved a high degree of consistency for the total responses given and obtained a coefficient value of 0.9646.

B. **Analysis of Results**

The results were analyzed to address the three hypotheses and to explore observed trends in detail. The first two hypotheses formed the basis of the study and sought to identify the degree to which death-related experiences influence the development of the preoperational child's understanding of death. The remaining hypothesis predicting age-related effects developed from the literature and was included for the purpose of replicating the existing research in the area.

TABLE 3

Interrater Reliability for Death Concept Components

Component	Interrater Reliability Coefficient
Universality	1.0000
Irrevocability	0.9551
Immobility	0.9392
Dysfunctionality	1.0000
Insensitivity	1.0000
Appearance	0.4054
Separation	0.9459
Causality	0.9139
TOTAL	0.9646

The first hypothesis predicted that preoperational children who had experienced the death of an intimate or familiar person, had attended a funeral, and/or had seen a dead person would demonstrate more advanced death concepts than preoperational children who had either experienced only the death of a pet and/or discussion about death or had had no experience with death. The second hypothesis postulated that preoperational children who had experienced the death of a pet and/or had talked with a parent, teacher, or other adult about death would demonstrate more advanced death concepts than preoperational children who had had no experience with death or the discussion of it. The third predicted that, when level of cognitive development was held constant at the preoperational stage, there would be a sequential progression in death concept maturity with age.

Two one-way ANOVAS addressed separately the effects of level of death experience and age on the death concepts held by preoperational children. The findings of the first one-way ANOVA disconfirmed the first two hypotheses which postulated an effect of death-related experiences on death concept development (see TABLE 4). There was no significant effect for level of experience ($F=1.94$, $p>0.05$) which suggests that neither the first-hand experience of the death of

TABLE 4

Analysis of Variance- Concept of Death Scores X Group

Source of Variation	df	Sum of Squares	Mean Squares	F	Significance of F
Between groups	2	20.78	10.39	1.94	0.17
Within groups	20	106.88	5.34		
Total	22	127.65			

TABLE 5

Analysis of Variance - Age X Group

Source of Variation	df	Sum of Squares	Mean Squares	F	Significance of F
Between groups	2	433.86	216.93	2.51	0.11
Within	20	1729.10	86.45		
Total	22	2162.96			

a person, funeral attendance, or viewing of a body, nor the death of a pet or discussion on death influences overall death concepts of children at the preoperational stage of development.

An additional one-way ANOVA was computed to ensure that age was ruled out as a contributing factor in this conclusion. No significant main effect for age was found when the mean ages of the three experience groups were compared ($F=2.51$, $p>.050$ (see Table 4.4).

While the first two hypotheses were disconfirmed, a comparison of percentages of children in each group demonstrating complete presence of individual components suggests that experience with death-related events does influence the development of understanding in some areas (see Table 4.5).

Consistent with past research (Gartley & Bernasconi, 1967; Kane, 1975; Koocher, 1973) which suggested that young preoperational children tend to focus on and understand the more obvious and concrete aspects of death, children in each group seemed to have the greatest understanding of the immobility of the dead. However, the proportion of children in each group demonstrating such knowledge differed. While all of the children who had had first-hand experience with the death of an intimate or familiar person believed

TABLE 6

Percentage of Children in Each Group Demonstrating Complete Presence of Death Concept Components

Component	Group 1 High Experience	Group 2 Moderate Experience	Group 3 No Experience
Universality	44.4	50.0	50.0
Irrevocability	66.7	50.0	50.0
Immobility	100.0	75.0	50.0
Dysfunctionality	88.9	75.0	50.0
Insensitivity	44.4	25.0	0.0
Appearance	0.0	25.0	0.0
Separation	77.8	62.5	16.7
Causality	22.2	37.5	16.7

the dead could not move, only 50% of children having no experience believed the same. Seventy-five percent of children who had had an intermediate level of experience demonstrated understanding.

A similar trend was noted for the components of Dysfunctionality, Insensitivity and Separation. As the degree of experience with death increased, so did the proportion of children understanding.

The findings of the second one-way ANOVA lent some support to the hypothesis that predicted there would be a sequential increase in CD scores with age (see Table 7). Because the bulk of participating children were 4 and 5 years of age and very few were 3, 6, or 7 years, it was necessary to form two age categories for comparison rather than having each age stand as a separate group. The first category consisted of children who ranged in age from 3 years, 1 month to 4 years, 11 months. The second category included all children 5 years, 0 months and older. The first group consisted of 13 children and the second of 10 children.

Results indicated a significant effect for age ($F=5.64$, $p<0.05$) and suggest that preoperational children aged 5 years and older hold more mature and realistic concepts of death than do preoperational children younger than 5 years.

TABLE 7

Analysis of Variance Concept of Death Scores X Age

Source of Variation	df	Sum of Squares	Mean Squares	F	Significance of F
Between groups	1	26.98	26.96	5.63	0.027 *
Within groups	21	100.68	4.79		
Total	22	127.65			

* $p<0.05$

A closer examination of the age-related differences in children's death concepts revealed that a greater proportion of children ages 5 years and older demonstrated complete presence of 6 out of the 8 individual death concept components compared to children under 5 years of age (see Table 8). Age 5 seems to mark a transition toward more adult-like understanding of Irrevocability, Immobility, Dysfunctionality, Appearance, Separation, and Causality. This difference was largest for the components of Immobility and Separation.

Results from a Pearson Product Moment correlation computed for PPVT scores and CD scores was significant ($r=o.43$, $p< 0.05$) and suggests that preoperational children's understanding of death also varies somewhat with their level of verbal intelligence as assessed by the Peabody Picture Vocabulary Test. Children who demonstrated higher levels of verbal intelligence tended to demonstrate more accurate death concepts than children with lower levels of verbal intelligence. This result is interesting considering the fact that one of the selection criteria was that all subjects must demonstrate an average level of verbal intelligence (scores ranging from 85 to 115).

TABLE 8

Percentage of Children in Each Age Group Demonstrating Complete Presence of Death Concept Components

Component	3:1 to 4:11 (n=13)	5:0 to 7:1 (n=10)
Universality	46.2	50.0
Irrevocability	46.2	70.0
Immobility	61.5	100.0
Dysfunctionality	61.5	90.0
Insensitivity	30.0	20.0
Appearance	0.0	20.0
Separation	30.8	90.0
Causality	15.4	40.0

C. **Discussion**

One of the factors considered in this study on death concept development was that of the cognitive developmental level of the child. More specifically, the study was designed to replicate and extend the findings of Hildebrand (1985) and Ryan (1983) - that first-hand experience with death of an intimate or familiar person serves to enhance the preoperational child's understanding of death.

Consistent with previous investigations into the effects of level of cognitive development on death concepts, many of the children in this study demonstrated immature and unrealistic notions (Hildebrand, 1985; Koocher, 1973; Reilly et al., 1983; Sternlicht, 1980; White et al., 1983). Piagetian theory would suggest that children in the present study would be dominated by egocentricity, preoccupation with the immediate and the perceptual, inability to focus on more than one dimension of a situation, and would tend to attribute life, motives, and intentions to inanimate objects. Given this basis for interpretation, it would be expected that they would have difficulty understanding what death entails since dying has not yet been experienced personally (Sternlicht, 1980), would view the dead as living on under changed circumstances (Ferguson, 1978), would focus on the most

observable aspects of death (Kane, 1975), and would have trouble conceiving of death as final (Codden, 1977).

As a group, the subjects of this study tended to view death as temporary and externally caused through accident, violence, or willful intention. The majority recognized that the dead could not move and no longer function biologically, but continued to believe that they retain many of their sensory functions and were able to hear, feel, dream, remember, and think. They were unable to describe how a dead person would differ in appearance from a living person. Several also did not seem to understand that the dead would be separated from the living in terms of location. A number of children expressed belief in exceptions and said they thought that they themselves and family members/friends/children would never die. Such findings support much of the literature on the effects of level of cognitive development; however, there are also some inconsistencies which should be noted.

Nearly 1/2 (43.5%) of the children in the present study expressed some belief that the dead could return to life either through medical attention or magic. Koocher (1973) and Kalmbach (1978) reported similar findings with 40% and 50% of the preoperational children in their studies expressing similar beliefs.

These proportions are low compared to those observed by Sternlicht (1980) and White et al. (1978) as they found that well over half of preoperational children (80%) believed death to be temporary and reversible.

Like the children studied by Koocher (1973) and Sternlicht (1980), the majority (65%) of subjects were able to list realistic and concrete causes for death, but focused solely on external forces such as accidents, shooting, stabbing, suicide. Only 1/3 recognized death as a natural biological process and listed aging and disease as potential causes.

Consistent with Piagetian theory which states that the preoperational stage is characterized by focus on the immediate and perceptual, the majority of the children in this study best understood the most observable aspects of death - that the dead do not move and that biological functions such as eating and breathing have ceased. Kane (1975) noted that children in her first stage (which she equated with Piaget's preoperational period) focused on structure and also understood that death is real and is characterized by immobility. She thought, however, that it wasn't until the onset of the concrete operational stage that the majority of children understood that bodily functions cease at death. The degree to which other preoperational children have demonstrated understanding

of cessation is difficult to determine as it is not clear how it was defined. For instance, White et al. (1978) reported that only 1/4 of the preoperational children in their study had attained complete understanding of cessation, but they did not specify whether they had questioned them about both bodily and sensory functions as did Kane (1975). Results from the present study and that of Kane's suggest that this is important information for comparison as a much larger proportion of children in both studies demonstrated recognition that biological functions cease than recognition that less obvious sensory functions cease.

For the purpose of the present study and that conducted by Hildebrand (1985), the component of universality involved recognition that all people including the self must die at some time. The proportion of the present sample demonstrating understanding of both elements of the component (50%) seems to be half-way between those reported in the literature. White et al. (1978) found that only 1/3 of preoperational children realized death as universal while Reilly et al. (1983) found 2/3 to understand personal mortality. Consistent with the observations of Koocher (1973) and Sternlicht (1980), many of the children in the present study either were unable to provide an estimate of when they might die or gave

unrealistic estimates of when that might be ("2 years" to "2000 years ago").

While the present group of children showed characteristics similar to other preoperational children studied, it is difficult to determine the degree to which their concepts were determined by their level of cognitive development as there was no comparison group included (i.e. concrete operational). A brief examination of the responses given by children excluded from the statistical analysis because they passed one or more of the conservation tasks suggests that children at the concrete operational stage may possess better understanding than children at the preoperational stage. Most were able to explain their answers in greater detail and seemed to hold a more complete understanding of death as a universal and permanent natural process characterized by complete cessation of functioning. While such observation is consistent with much of the past research (Hildebrand, 1985; Hornblum, 1978; Koocher, 1973; Reilly et al., 1983; White et al., 1978), it may reflect the influence of factors other than level of cognitive development as the children in this study who were identified as concrete operational also typically demonstrated higher levels of verbal intelligence than their same-age peers who were identified as preoperational. Whether the

apparent differences are a result of cognitive level or not, they do suggest that ability to conserve is not a necessary condition for understanding any of the components as mature, adult-like notions of each of them was demonstrated by some of the preoperational children.

It appears from exploratory analyses that intelligence may, in fact, play an important part in conceptual development during the preoperational stage. A comparison between level of verbal intelligence and level of understanding of death revealed a moderate but significant relationship even for children who obtained PPVT scores within the "average" range. This relationship was more pronounced when children with "below average" and "above average" IQ scores were considered. The results are consistent with those of other researchers who defined the child's level of cognitive development in terms of his/her demonstrated level of intelligence. A relationship between mental age and level of death concept development was reported as early as 1940 by Anthony. She observed that children's mental age score on the Stanford Binet Intelligence Test seemed to be associated somewhat more closely with their understanding of death than their chronological age. Jenkins and Cavanaugh (1985-86) observed that death concept maturity was positively

related to verbal intelligence, but did not find any significant relationship between level of understanding and level of perceptual/spatial reasoning. Orbach et al. (1985) found that bright children tended to demonstrate greater understanding of death than their not as bright same-age peers, particularly when they were not subject to high levels of general anxiety. While Sternlicht (1980) did not use a comparison group of normal-intelligence children, she found that mentally retarded children tended to hold immature and unrealistic notions of death.

The present study failed to show an effect of experience with death and death-related events on the overall level of understanding of death held by preoperational children and, thus, did not substantiate the findings of Hildebrand (1985). Hildebrand examined the effect of first-hand experience with death and no experience on developing death concepts of children at two developmental levels. She observed an interaction between level of experience and level of cognitive development such that experience with death served to enhance understanding of death in preoperational children only. Concrete operational children tended to demonstrate mature and realistic death concepts regardless of their prior experience or inexperience. Ryan (1984) and Kane (1975) observed a similar trend in

young children they claimed to be at the preoperational stage; however, they classified children as such only on the basis of their ages. Ryan claimed that experience of sibling death increased the preoperational child's understanding of universality, irreversibility, and inevitability. Kane (1975) observed that 3 to 6 year-olds who had had first-hand experience with death and/or death-related events indicated higher percentages of complete presence of components than their non-experienced peers. She noted that the impact was most pronounced for the understanding of Dysfunctionality, Insensitivity, and Causality.

Observations of other researchers were also in disagreement with the present findings although their studies did not focus specifically on the interaction between cognitive and experiential levels. Reilly et al. (1983) found that 5 and 6 year-olds (and 5 to 10 year olds) who had previous experience with death were more likely to believe in personal mortality than those who had had no death experience or had experienced only non-death separations such as divorce of their parents.

In a comparison of groups of children aged 4 through 17 who had had the common experience of a close relative dying, Weber and Fournier (1985) found that those children who had participated in death-related

activities such as touching the body, expressing opinion about death, visiting the funeral home and grave, and going to the funeral or memorial service demonstrated more complete understanding of death than did those who had participated in fewer or none of these activities.

Other researchers have obtained results which support those of the present study. Tallmer et al. (1980) found no difference in the death concepts of children (ages 3 to 9) who had had experience with death and/or had talked with their parents about death and those who had had no experience or discussion. Seide's (1983) results also failed to indicate any effect of experience; however, he had focused on death concepts of grade 2 students who presumably would have been within the age range for which Kane observed no significant effect (age 7 to 9).

Townley and Thornburg (1980) reported a puzzling trend which was not substantiated in the present research, but which still provides some support to the findings. They found that a higher percentage of children who had had previous death-related experiences demonstrated a low understanding of death than did those who had not. While all three groups of children in the present study showed an equal level of death

concept development, it was low given the scoring criteria delineated by Kane (1975).

There are several possible explanations for the present findings. First, children were not grouped according to their TV viewing so that those in the "no experience" group may have watched programs which mentioned or pictured death. In fact, a sizeable proportion of each group reported having watched shows in which they had seen someone die through murder or accident or said they had heard of people dying on radio and TV news. Thus, children in the "moderate experience" and "no experience" groups may have obtained information which influenced their death concept development. Support for this position comes from two studies which investigated or proposed such possible media influences. Gartley and Bernasconi (1967) noted that children in their study often mentioned that their comments on death were repetitions of what they had seen or heard on TV. Zweig (1976) observed that the children in his study appeared to have learned more about death from the media and reading than they had from formal religious training or school.

A second possible explanation was suggested by Orbach et al. (1985) and Reilly et al. (1983). They noted that several writers and theorists had proposed

that understanding of death may develop spontaneously out of emotional or experiential events which do not directly involve death. Orbach et al. reported that Maurer and Anthony had suggested the being/non-being dichotomy is first experienced through cycles of wakefulness and sleep, that Kastenbaum and Anthony had suggested that the child learns of death through experience with short and long-term separations from others, and that knowledge of death may develop through observation of animal/plant death and overhearing adult conversation. Reilly et al. noted Kastenbaum's subscription to such an explanation. He claimed that it was supported by observation of children's spontaneous play as they often could be seen to be involved in a variety of death-related games and conversations. Thus, it may be that the children in the present study who had neither experienced death nor the formal discussion of it had learned of death elsewhere.

Kastenbaum (1967) suggested also that experience with death may, in fact, enhance the child's level of understanding of death, but that the effect dissipates over time because of familial supression and the child's intellectual limitations. He noted that children easily observe adult's reluctance and disapproval of questions/discussions of death and

therefore, learn to not talk of their experiences and let them fade over time.

A fourth explanation suggests that experience with death may actually influence children's concepts, but in a such a manner that the effect may not be apparent through comparison of overall levels of understanding. Reilly et al. (1983) proposed that concrete experience with death and death-related events may serve to enhance the development of only certain elements of the death concept. An examination of the percentages of children in each of the three groups demonstrating complete presence of the eight components suggests that this may be the best explanation of the present findings. While level of experience did not seem to influence children's understanding of Universality, and did not appear to have a systematic effect on their understanding of either Causality or Appearance, consistent trends were noted for the other components. Understanding of Immobility, Dysfunctionality, Insensitivity, and Separation seemed to be strongly influenced by experience as proportions of children demonstrating complete presence increased substantially with the level of experience with death and death-related events. A greater percentage of children who had experienced the death of an intimate or familiar person, had attended a funeral, or had seen a

dead body demonstrated understanding of Irrevocability than those who had experienced only the death of a pet or discussion of death or who had had no experience. These observations are, in part, substantiated by those of Kane (1975), for she, too, found that children aged 3 to 6 years old who had had experience with death evidenced greater understanding of Dysfunctionality and Insensitivity. However, she found a similar effect for understanding of Causality which was not observed in the present study. Unlike the children in Kane's investigation, the only subjects in the present study who seemed to have a good understanding of Immobility and Separation were those who had had some experience with death and/or the discussion of it. It would be interesting to conduct a parallel investigation with rural children as they, living on farms, presumably would have experienced death more frequently and in a manner which would be considered acceptable - slaughter of cattle and chickens, stillbirth of animals etc.

While level of experience with death and death-related events appeared to influence only a few specific elements of the death concept, age proved to be a good determinant of overall level of understanding and thereby provided additional support for the oft-observed increase in concept maturity with age (Atwood, 1984; Codden, 1977; Gartley & Bernasconi,

1967; Hildebrand, 1985; Kane, 1975). Using Kane's (1975) 75% criterion, it becomes readily apparent that the majority of children under 5 years of age hold very poor concepts of death. Children 5 years of age and older appear to have higher overall levels of understanding and are much more likely to demonstrate complete presence of the components of Immobility, Dysfunctionality, and Separation. A comparison of the two age groups suggests that there is also a moderate difference in their understanding of Causality, Irrevocability, and Appearance.

Consistent with previous observations and writings (Gartley & Bernasconi, 1967; Kane, 1975; Stambrook & Parker, 1987; Sternlicht, 1980), the 3 and 4 year-olds in the present study showed a realization of death and expressed definite notions (although often inaccurate) about it. Like those in the studies conducted by Beauchamp (1974), Kane (1975), Nagy (1948), Safier (1964), Swain (1979), and Weininger (1979), over 1/2 of them viewed death as temporary and said they thought the dead could return to life by magic or if they were taken to a doctor and cared for properly. The proportion of this age group who did appear to understand that death is final was, however, higher than that reported by Childers and Wimmer (1971), Weininger (1979), and Wass et al. (1983).

Approximately 1/2 of the children, again, did not seem to recognize death as a universal phenomenon. They indicated that they knew of death, but said they did not believe that they themselves and/or their family members and friends would ever die. The proportion of this age group demonstrating understanding was equal to that reported by Swain (1979), but higher than that reported by Childers and Wimmer (1971). All but one of the children demonstrating complete presence said that they were sure they would die only in the remote future. Some researchers would interpret such qualification from a psychoanalytic standpoint. Yalom (in Stambrook & Parker, 1987) and Orbach et al. (1985) suggested that very young children may have the ability to understand death, but distort its true meaning to protect themselves from the anxiety that understanding creates. Presumably the thought of one's own death or the death of family members would be upsetting to the child and, from this interpretation, would result in a failure to acknowledge such possibility.

Consistent with Nagy's (1948) and Melear's (1973) contention that young children view death as simply an altered phase of life, approximately 1/3 of the 3 and 4 year-olds believed the dead could still move and would

continue some biological functioning, and 2/3 thought they would retain several of their senses.

The majority of this age group listed realistic and possible causes of death, but focused solely on external means such as guns, bombs, bows and arrows, murder, stabbing, swords, and car accidents. Unlike the 3 and 4 year-olds in Beauchamp's (1974) study, very few children listed unrealistic causes such as anger and punishment. The percentage of children unable to list any causes was much smaller than that reported by Wass et al. (1983).

A greater proportion of children aged 5 to 7 years demonstrated complete understanding of these and other components. Unlike observations of Atwood (1984) and White et al. (1978), the understanding of Irrevocability appeared to be related to age. Slightly fewer children than in Kane's (1975) or Hildebrand's (1985) studies realized death's permanence; however, the proportion that did was greater than that reported by Hornblum (1978), Childers and Wimmer (1971), Weininger (1979), and Wass et al. (19). A few of the children in this group began to distinguish between corporeal life and spiritual life and mentioned life after death in a religious context.

Consistent with past research (Gartley & Bernasconi, 1967; Hildebrand, 1985; Kane, 1975), this

group of children tended to focus on the most concrete and obvious aspects of death and seemed to understand them best. Every child recognized that the dead do not move and many appeared astonished that the question was even asked. As in the studies conducted by Kane (1975) and Hildebrand (1985), age 5 marked the aquisition of some understanding of the location of the dead. Nearly all children recognized the physical separation from the living and most often mentioned burial/graveyards and/or Heaven in response to the question, "Where do people go after they die?" An equal proportion of children also recognized that the most obvious biological functions cease (eating, drinking, breathing, heartbeat). Unlike the observations of White et al. (1978), these results suggest that such understanding is dependent on age with age 5 marking its maturity. Compared to subjects of other studies (Hildebrand, 1985; Kane, 1975; Melear, 1973), this group of children appear to be advanced by one or more years in their aquisition of this component (Dysfunctionality). However, they may not have been advanced in their understanding that less obvious functions such as sight, hearing, feeling, thinking, and dreaming also cease for the majority expressed belief that the dead could do some of these things. Such a discrepancy was anticipated as it was observed

previously by Gartley and Bernasconi (1967), Kane (1975), and Hildebrand (1985), and because the reported ages for complete understanding of cessation are higher than the oldest subjects of this study - age 9 (Childers & Wimmer, 1971; Nagy, 1948), and age 10 to 12 (Kane, 1975). The only exception noted was that by Atwood (1984) who observed that only 10 percent to 34 percent of Kindergarten children believed the dead could still carry out such activities.

Like the 3 and 4 year-olds, the older children in this study focused on external means when asked, "What makes people and other things die?"; however, they did so to a lesser degree. A greater proportion recognized aging and disease as probable causes. The proportion of children in this group believing people die only through accidents or violent acts is comparable to that reported by Weininger (1979) and Atwood (1984) and slightly lower than that reported by Wass et al. (1983) and Hildebrand (1985). That less than 1/2 of the children demonstrated complete presence of the Causality component is not unexpected given that Kane (1975) did not find consistent understanding developing until age 6. Both her study and the present one support Swain's (1979) observation of a transition stage between 5 and 7 years.

Recognition that all people, including the self, must die did not appear to be influenced by age as the proportion of the oldest group demonstrating understanding was equal to that of the youngest group. However, to assume that its development is independent of age may be erroneous as other researchers have observed that complete and consistent understanding is not found before age 7 (Hornblum, 1987; Wass et al., 19 ; White et al., 1978), 8 (Reilly et al, 1983), or 9 (Childers & Wimmer, 1971). The proportion who did demonstrate complete understanding of mortality was equivalent to that observed by Reilly et al. (1983), Swain (1979), and Wass et al. (1983). However, the results are in contrast to those of Kane (1975) as she observed that the majority of her 5 year-olds and all of her 6 year-olds demonstrated understanding.

The present findings regarding the component of Appearance were consistent with those reported by Kane (1975) and Hildebrand (1985) for, like their subjects, very few of these children recognized that the dead would look different from the living. Those who indicated some recognition were generally unable to identify what would differ. Like the subjects in other investigations (Atwood, 1984; Gartley & Bernasconi, 1967), the majority of the children focused solely on position (lying down) or physiological differences such

as, "Their heart stops beating.", "...with their eyes open and they can't even see us.", "You shake them and they don't wake up." Such results were anticipated given that Kane found complete presence was not demonstrated consistently until age 12.

It seems, given the comparison of the two age groups, that a shift in understanding of death may occur within the preoperational stage and, thus, may be more closely tied to the age of the child rather than to his/her developmental level. Such a shift has been documented in past research, but typically has been reported to occur around 7 or 8 years of age (Anthony, 1940; Atwood, 1984; Safier, 1964). Swain (1979) however, did observe a trend consistent with that of the present study as she too found a change in death concept maturity in 5 to 7 year-olds compared to 2 to 4 year-olds.

Such an observation is difficult to interpret for several reasons. First, while the division of the sample into just 2 age groups was necessary because of the small number of subjects, it may have distorted the true developmental pattern depicting it as abrupt and uneven rather than gradual. Secondly, because the eldest group demonstrated improved but still relatively immature concepts, it may be that there is more than one shift in understanding, with one occurring between

the ages of 5 and 7 and another occurring after age 7. Finally, the present results do not necessarily invalidate the observation (Hornblum, 1978; Koocher, 1973) that a shift in understanding tends to coincide with the transition from preoperational to concrete operational thinking. It may be that the 5 to 7 year-olds in this study had already begun to aquire some of the new skills characteristic of the concrete operational stage even though, as yet, they were unable to conserve. Regardless, the results are consistent with those of all other researchers (Grollman, 1970; Stambrook & Parker, 1987; Yakulis, 1975) in that there were individual differences in death concepts within the preoperational stage itself and within single age groups.

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

The present study was designed to explore how various experiences with death and death-related events might affect death concepts held by children at the preoperational stage of cognitive development. Twenty-three preoperational children (ages 3 to 7) were interviewed, grouped according to the nature of their experiences, then compared on their understanding of death in general and of eight of its more specific elements (Kane, 1975). While results failed to confirm that experience with death enhances overall level of understanding, they did suggest that children who have had some experience are more likely to understand certain aspects of death than children without experience.

As the degree of experience increased from no experience to talking about death or experiencing the death of a pet to experiencing the death of an intimate/familiar person, attending a funeral, or seeing a dead person, children were more likely to understand that death involves separation and is characterized by immobility and the cessation of all bodily and sensory functions. Children who had experienced the loss of a person close to them also

tended to have a better understanding of death's irreversibility.

Additional analyses indicated some support for other developmental trends previously observed. Consistent with the observations of Koocher (1973), Sternlicht (1980), Kalmbach (1978), and White et al. (1978), the preoperational group studied demonstrated immature and unrealistic concepts. Consistent with most of the past research which has looked at age-related trends (Atwood, 1984; Gartley & Bernasconi, 1967; Kane, 1975; Melear, 1973; Nagy, 1948; Safier, 1964; Weininger, 1979), older children tended to demonstrate more adult-like notions of death than younger children. This was evident both in their overall levels of understanding and in their understanding of the specific elements of irrevocability, immobility, dysfunctionality, appearance, separation, and causality.

There were several limitations and potential difficulties which, to some degree, restrict the generalizations and conclusions that can be made. Consistent with the other research in the area and much of that involving children in general, the study was cross-sectional in nature and involved a very small number of subjects. A one-time comparison of a group of children of different ages having had different

experiences at different times in their lives leads one to infer developmental processes when, in fact, their development has not been observed (Stambrook & Parker, 1987). Do death concepts develop in an orderly pattern in all children? Does each influencing factor influence the development in the same way across children? Will the children of the 1990's show similar patterns of concept aquisition as those of the 1980's?

Similarly, can generalizable conclusions be based on the responses of so few children? Examination of the present study results would suggest that number does, indeed, impose restrictions. While age appeared to be a more influential factor than death-related experience on the developing death concepts of preoperational children, the relationship between the two could not be properly explored because the sample number did not allow analysis of interactive effects. Does level of experience serve to enhance the death concepts of the younger preoperational child alone? Or perhaps of the older?

Additional potential limitations were imposed by the particular assessment measures selected. While the use of Kane's (1975) scoring provided a basis for replication and comparison with her results and those of Hildebrand's (1985), examination of children's responses suggested that the scoring is not

comprehensive and does not adequately depict the move toward concept maturity. First, her designated criteria are incomplete and unclear for the component of Appearance. Second, each component is evaluated individually with no opportunity to consider additional references made to it in discussion of other components. Third, the range of concept of death score (0 to 16) is misleading as few "0" scores were assigned and as a mid-point score of "8" could reflect incorrect and immature notions of all 8 components. And fourth, responses to each component are scored "0", "1", or "2", thereby classing it as either nonexistent, incorrect, or correct with no recognition of partial accuracy. What about the child who demonstrates accurate understanding of some elements of the components? Should he/she be classed with the child who demonstrates complete inaccuracy?

Were all the children studied actually within a single stage of cognitive development? The choice of the three Piagetian conservation tasks used to identify children as preoperational was also based on precedent (Hildebrand, 1985) and made for replication and comparison purposes. It may be, however, that they did not adequately distinguish between children actually in the preoperational stage and children beginning to move out of the preoperational stage. Had some of the older

children already experienced some qualitative changes in their thought processes? Was Piaget's "horizontal decalage" a factor in the failure to replicate Hildebrand's (1985) observation that experience with death enhances the preoperational child's understanding of death?

Again by precedent, the interview method was selected to explore the degree to which the preoperational child understands death. Although such a measure has been used almost exclusively in death concept research, it has been criticized on very valid bases (Codden, 1977; Hornblum, 1978; Salladay & Royal, 1981; Stambrook & Parker, 1987; Weininger, 1979). While adults working with children and death must be aware that their ideas and understanding will differ, they must also realize that the child's ability to verbalize his/her thoughts will determine the degree to which the difference is perceived. Estimating children's level of understanding solely from their verbal responses may have been misleading (Codden, 1977; Hornblum, 1978; Salladay & Royal, 1981; Stambrook & Parker, 1987):

> ...children often say things that make one think they grasp a concept when in fact they are just quoting adults or reflecting the influence of other outside sources and do not as yet have the internal concept to match the words or phrases they dimly know are expected of them. By the same token, they may have thoughts and feelings

> which they are unable to articulate clearly and thus reveal to an adult the full extent of their understanding.
>
> (Weininger, 1979, p. 399)

Lastly, while the inclusion of a separate group of children who had experienced the death of a pet and/or had discussed death with an adult was meant to expand the literature, it also served to emphasize the difficulties in making comparisons on such a variable. To group in such a manner involves rank-ordering experiences from nonexistent to intensive; however, such ordering can not take into account the number of experiences, the age/time at which they occurred, the extent of the child's involvement in them, nor, more importantly, their meaning for the child. Does the death of a family member or friend necessarily out-rank the death of a pet? Does the child who is excluded from grieving/mourning rituals have a more intensive experience than the child who has frequently discussed various aspects of death? Do all discussions hold the same importance or impart the same information?

The questions raised in light of the research results and limitations have important implications for both working with children and conducting further research. While children's death concepts seem to be influenced by their age, cognitive development, level of verbal intelligence, and prior death-related

experiences, none of these factors in and of themselves appear to be sufficient nor necessary conditions for mature understanding. Children the same age, within the same developmental stage, having similar levels of intelligence and experience with death differ. They differ in the specific components they can understand; they differ in their understanding of death in general; and they differ in the degree to which they can express their understanding clearly and logically.

What is clear, however, is that the very young child who is bound by the egocentricity, poor logic, and immediacy characteristic of preoperational thought does know something of death. While his/her notions may be illogical and fantasy based or merely inaccurate or incomplete, he/she has aquired some information, does think about death, and has developed definite ideas. Thus, it is important that he/she not be excluded from grief work. We cannot assume that a child is too young or that he/she is unable to understand anything of death. Young children can and do grieve although, often, it is for reasons very different from those of adults. The degree to which the child can cope with his/her grief will depend on his/her conceptual understanding of death (Codden, 1977; Salladay & Royal, 1981); therefore, it is imperative that counsellors, teachers, and other adults

approach them on an appropriate level. While research into contributing factors such as those investigated in this study may provide some guideline as to the ideas/understanding held by a particular child, it does not account for individual differences in children in terms of development, behavior (Grollman, 1970), cultural heritage, and life experiences (Yakulis, 1975).

To be most effective, practitioners must approach discussion/counselling from the child's point of view. What does the death mean to the child? What are his/her main concerns? What does he/she already understand of death? What has he/she been taught or told? Does the child hold misconceptions which hinder acceptance of the loss? What experiences has the child had in the past that might relate to the present loss? It seems that it would be most helpful to use the research findings as a starting point then to determine the child's unique notions or ideas and present level of understanding (Salladay & Royal, 1981). The child's comments and questions will indicate what he/she thinks to be true and what he/she yet needs or wants to learn. "It would seem that the best explanations are those which are simple, direct, and draw as much as possible from the child's own experiences. In this way the

relative concreteness of the younger child produces the least possible distortion." (Koocher, 1973, p. 374).

With regards to future research, the present study has served to initiate a number of research questions and problems which may disclose important information for theorists and counsellors or professionals who are faced with the task of helping young children cope with death. A revision of Kane's (1975) scoring system is in order and may well provide more detailed information on the progression from ignorance to mature understanding of death. Examination of children's responses suggest that a four-point scoring system may be more appropriate as it would allow recognition of partial accuracy in component aquisition. It was readily aparent that, for each component, a number of children had developed a level of understanding somewhere between complete inaccuracy and complete accuracy. For instance, several children demonstrated understanding that some, but not all bodily/sensory functions and movements cease after death; that most, but not all people die; that most people do not return to life, but that some may be resuccitated; and that violence is a possible cause of death, but saw it as the only cause. Inclusion of an intermediate level in the scoring could potentially reveal a more accurate picture of individual component development, the order

of component aquisition, and the relationship between components and should be considered in further research.

The effects of experience with death and death-related events of death concept development requires further investigation. The inclusion of an intermediate experience category involving discussion/teachings on death did not support the death education efforts advocated by Hildebrand (1985) and others (Reeves, 1985) in terms of having an effect on overall level of understanding. However, it did suggest that discussion may help the very young child to recognize that death involves separation and is marked by cessation of movement and functioning. Future research in the area has before it the task of evaluating the number and type of discussions in relation to death concept development and should focus on evaluation and comparison of children's level of understanding of death before and after such teachings.

The observation that experience with death did not serve to enhance overall level of understanding of death in the preoperational group as a whole, but that ages 5 to 7 marked a shift in understanding needs further investigation. First, the relationship between age and experience needs to be explored with a large number of children to determine if and how prior

experience with death influences understanding of death at different ages. Second, the often undefined transitional period between the preoperational and concrete operational stages needs to be more closely examined. Frequently occurring between the ages of 5 and 7 and associated with an increase in concept maturity regardless of prior experiences (Hildebrand, 1985), the transitional period may provide important clues as to when and how children develop adult-like notions of death. Rather than focusing on conservation ability which is present when the child is already in the concrete operational stage, consideration must be given to assessment of initial qualitative changes in thinking and how they relate to understanding of death. Additional tasks such as class inclusion and seriation could be administered to children within the 5 to 7 year age range to identify various stages of transition which might be associated with changes in death concept maturity.

Perhaps the greatest challenge comes in going beyond the scope of the present study and others like it. To verify the findings of the existing literature, a longitudinal exploration is essential. Periodic observation and evaluation of a single group of children over a number of years is necessary to confirm

the potential effects of age and other variables/life events on death concept development.

Another broader but perhaps more important area from which confirmation and extension can be obtained is that of qualitative research. While quantitative approaches such as Kane's (1975), Hildebrand's (1985), and the present study have provided important information and allow for easy comparison of various groups of children, they impose limits by their scoring, reduce individual variation, and can not fully consider the individual child's thoughts and feelings and death's personal meaning. The applicability of qualitative approaches per se naturally is restricted by the verbal limitations of the very young child; however, use of more interpretive measures such as drawings and observation of associative play and other behavior may provide important information on death concept development which has not been previously accessed by the traditional interview method.

Such an approach may better allow focus on what a young child <u>can</u> understand of death given the "right" circumstances rather than what the modal child understands (Stambrook & Parker, 1987). What part do even higher levels of experience play in the young child's understanding of death? What about the child who himself/herself is facing death? How early can a

child demonstrate an initial awareness of death? How, and under what conditions, is that understanding expressed?

Observations of Kubler-Ross (1983) and Bluebond-Langer (1978) suggest that terminally or critically ill children often hold an awareness of death far beyond their years. This "inner knowledge" (Kubler-Ross, 1983) is not typically expressed verbally but more often through poems, drawings, or behavior. We need to turn our focus to examining the child's reality from a perspective other than an adult's point of view, for the child may hold a more accurate picture than many adults that is, in fact, limited by the constraints of the adults' identified "concept."

It is not clear as to the age at which such awareness develops; however, her work and other observations suggest that children younger than those selected for verbal interviews may have some understanding of some aspects of death. Is there a level of understanding less conscious and more intuitive that transcends the cognitive and develops before verbal skills are adequate for complete expression?

EPILOGUE

An opportunity to observe four young children during the writing of this last chapter supports the notion that children may well hold an accurate understanding of death that defies the cognitive limitations identified for their years and which, may in some ways, surpass that held by their adult caretakers. The children were involved in visiting their very ill grandfather in the days before his death. While they demonstrated varying levels of cognitive understanding which corresponded to the age and cognitive-related research, there seemed to be a deeper awareness that was not as cognitvie and not as conscious. All of the children demonstrated apparent intuition both before and after the death through their questions, their play, and their comments. The most striking, perhaps, were the words of the youngest. A few days after her grandpa had died, the 17-month old entered her grandparents empty bedroom (which was not the room she had visited him in), looked around, saw no one was either in the room nor on the bed, and said, "Bye-bye papa. Nigh-night." She walked out to find her toys.

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APPENDIX I

Flashcards

Six flashcards were presented to children to assess their understanding of the concepts of "same/different" and "more/less."

The first three cards depicted "same/different":

1. Children were asked which of two sides of card #1 showed two shapes the same. Side 1 had a circle and a triangle and side 2 had two triangles.
2. Children were asked which of two sides of card #2 showed two balls the same size. Side 1 had two small balls and side 2 had 1 small ball and 1 large ball.
3. Children were asked which of two sides of card #3 showed two piles of marbles the same. Side 1 showed 2 small piles and side 2 showed 1 small pile and 1 larger pile.

The next three cards depicted "more/less":

4. Children were asked which of two sides of card #4 showed more balloons. Side 1 had 1 balloon and side 2 had 4 balloons.
5. Children were asked which of two dogs on card #5 had more bones. The dog on side 1 had 9 bones and the dog on side 2 had 3 bones.
6. Children were asked which of two glasses on card #6 had more chocolate milk in it. The glass on side 1 was only 1/3 full while the glass on side 2 was full.

APPENDIX II

Conservation Tasks

Conservation of Amount

materials: - two balls of playdough, one yellow and one blue

- extra blue playdough

test trial: The two balls of playdough, identical in size, weight, and shape were placed before the child. He/she was asked to verify their sameness. If the child thought the balls did not have the same amount, playdough was removed from the ball he/she identified as larger until he/she agreed the two were the same. The experimenter then rolled the yellow ball into a sausage shape and asked the child if they still had the same amount of playdough or if one now had more. The child was then asked why he/she thought they were the same/different.

check trial- The experimenter then added more blue playdough to the blue ball so that it was visibly larger and asked the child if the two balls had the same amount of playdough or if one had more. Again the yellow ball was rolled into a sausage shape and the child was asked once more whether the two had the same amount of playdough or if one had more. The child then

was then asked why he/she thought they were the same/different.

Conservation of Weight

materials: - two balls of playdough, one blue and one red
- extra red playdough

test trial- The two balls, identical in size and shape were placed before the child. He/she was instructed to hold one in each hand and to decide whether or not they weighed the same. If he/she indicated that one ball weighed more than the other, playdough was removed from that ball until he/she agreed they weighed the same. The experimenter then rolled the blue ball into a sausage shape and asked the child if the two would still weigh the same or if one would now weigh more. The child was then asked why he/she thought they would weigh the same/different.

check trial- The experimenter then added some red playdough to the red ball so that it was visibly larger than the blue ball and asked the child if the two balls would weigh the same now or if one would weigh more. Again the blue ball was rolled into a sausage shape and the child was asked if the two would weigh the same or if one would weigh more. The child was then asked why he/she thought they would weigh the same/different.

Conservation of Volume

materials: - two balls of playdough, one green and one yellow
- extra green playdough
- two glasses
- water

test trial- The two balls, identical in size, weight, and shape were placed before the child. The child was then instructed to watch as the experimenter poured equal amounts of water into the two glasses. The experimenter then asked the child what he/she thought would happen to the water if one ball was placed in each glass. If the child did not recognize that the water would rise an equal amount in each glass, a demonstration was provided. The experimenter then rolled the yellow ball into a sausage shape and asked the child if he/she thought the water would still rise the same amount in each glass or if it would rise higher in one glass. The child was then asked why he/she thought it would be the same/higher.

check trial- The experimenter then added some green playdough to the green ball so that it was visibly larger and asked the child if the water would rise the same amount in each glass or if it would rise higher in one. Again the yellow ball was rolled into a sausage

shape and the child was asked if the water would now rise equal amounts or if it would rise higher in one glass. The child was then asked why he/she thought it would be the same/higher.

APPENDIX III

Death Experience Questions

Children were introduced to the interview in the following manner:

"Now I am going to ask you a few questions about things that are alive or living and things that are not alive or are dead. There are no right or wrong answers. I am just interested in finding out what boys and girls your age think about them. I would like you to try and answer all of the questions, but please tell me if there are any questions that bother you. It's okay to guess or make up an answer if you are not sure what to say. Most kids guess on some of them."

1. Do you like to watch TV? What is your favorite program?

2a. Have you ever seen people die on TV? (Have you ever watched a show that someone died in?)

2b. Do you remember what show that was? (Do you remember what happened to the person that died?)

2c. How did you feel when you saw that person die?

3a. Have you ever read a story that made you think of death? (Have you ever read a story about someone that died?)

3b. Do you remember what the story was about?

4a. Do you have a pet? If yes, what's its name?

4b. Did you ever have a pet that died?

If yes, 4c. How did you feel when he/she died?

4d. Did you talk your Mom or Dad about your pet dying? If yes, Can you remember what they said?

5a. Do you go to Sunday School or church? If yes, Have you ever heard people talking about death or about people dying there?

If yes, 5b. Can you remember what they said?

6a. How many people are in your family? (You and who else?)

6b. Has anyone in your family ever died? (Any grandmas or grandpas, aunts or uncles?)

If yes, 6c. How did you feel when your ____ died?

6d. Did you talk to your Mom or Dad about your ____ dying?

7a. Have you ever talked to your Mom or Dad about death or people dying?

If yes, 7b. Do you remember what you talked about?

7c. Did you ask them any questions?

8. Do you know anyone else that has died?

9a. Do you know what a funeral is?

If yes, 9b. Have you ever been to one? (Whose?)

9c. Do you remember what happened there?

10. Have you ever seen someone that was dead?

11. Is there anything else you are thinking about that you would like to tell me or ask me about death?

APPENDIX IV

Experience of Death - Hildebrand (1985)

Do you have a pet?

Have you ever had a pet that died?

How did you feel when your pet died?

Do you remember what your parents said to you when your pet died?

When was the first time you heard about death?

Do you watch movies or TV much? What's your favorite program?

Have you seen people die on TV or in the movies? In which shows did you see this happen?

How do you feel when you see people die on TV?

Do you remember hearing or reading any stories that made you think of death? (If yes, what was this story?)

Do you go to Sunday School or church? (If yes, have you ever talked about death in Sunday School or church?)

In school, teachers and students talk about many things. What is your favorite thing to talk about in school?

Has your teacher ever talked about death to your classroom? (If yes, what did your teacher talk about? When was that time?)

Has any student from your school ever died?

How many people are there in your family?

Has anyone in your family ever died?

How did you feel when you learned that they died?

Have you ever talked with your parents about death or about someone that has died? (If yes, what did you talk about?)

Do you talk to your friends about death? (If yes, what do you talk about?)

Do you know anyone else that has died? (If yes, who were they? How many others?)

How did you feel when you learned that they died?

Do you know what a funeral is?

Have you ever gone to a funeral? (If yes, whose funeral was it? How many? How old were you when you went?

Have you ever seen someone that is dead?

I would like to learn how boys and girls know what death means. How did you learn about death?

Do you think students and teachers should talk about death in school?

Can you tell me why you answered yes or no?

Is there anything else that you are thinking about that you would like to tell me or ask me about death?

APPENDIX V

Concept of Death - Hildebrand (1985)

Instructions: "I'm going to ask you some questions and I'll record your answers with the tape recorder. There are no right or wrong answers for any of these questions. I just want to know what boys and girls of your age think about these questions."

1. Can you tell me everything you know about death? (What does death mean?)
2. What kinds of things can a dead person do...play, see, walk?
3. Where are they? (dead people)
4. Can you make dead things or people come back to life?
5. What makes people die? (Why do people die?) (What causes death?)
6. Do things work in people's bodies after they die? (Do they eat, drink, breathe, think, feel?)
7. Who dies? (Does everybody die or only some of the people?) (Will you die? When will you die?)
8. Can a dead person: smell flowers
   taste food
   catch balls
   answer questions
   can they dream or think
   jump when they are tickled

9. How do you know when someone is dead? (What do they look like?)

10. Do you think that there is life after death? (Do you think that we live on after we die? If so, where?)

Note: Bracketed questions denote alternatives that may be used when the child does not understand the initial question.

APPENDIX VI

Death Concept Questions

1. Do you know what the word "death" means? (What does the word "dead" mean?)

2a. What are some things that are alive? (Can you name me some things that are living or alive?)

2b. Do you think those things will always be alive? (Will those things you said be alive forever?)

2c. Can people stay alive forever?

2d. Does everybody die or only some of the people? (Do all people die some day or just some people?)

2e. Do you think you will die some day? If so, when do you think that could be?

3. Can you make dead things or people come back to life? How? (If someone died, is there anything we could do to make him living again?)

4a. What are some things that people who are alive can do?

4b. Can someone or something that has died do any of those things? (Could they play, walk, jump? Could they move at all?)

5. Do people's bodies work after they die? Can they:
   - eat or drink?
   - breathe?
   - make their hearts work?

6. If someone died, would he be able to:

   - smell flowers?
   - taste food?
   - see if it was dark?
   - hear noises?
   - feel if it was cold outside?
   - remember things?
   - dream?
   - think?

7. How do you know when someone is dead? (What do they look like?)
8. Where do people go after they die? (What happens to their bodies -- where are they?)
9. What makes people and other things die? (Why do people die?

Note: Bracketed questions denote alternatives that may be used when the child does not understand the initial question.

APPENDIX VII

Letter to Daycare Directors

Dear Director,

I am a graduate student in the Master of Education program in Counselling Psychology at the University of Alberta. I am in the process of finding subjects to participate in my thesis project for February/March.

The focus of my thesis is how children understand death and how various experiences affect that understanding. Past research has found that children's ideas about death are different than adults' ideas and that their ideas change as they grow older and move through various developmental stages. Very young children (preschool and early school age) often hold ideas which are inaccurate and misleading, yet the bulk of the research has neglected looking at this age group and the factors which contribute to their understanding. I feel that it is important for people working with children to understand their ideas, particularly when they are faced with the task of helping a young child deal with a personal loss.

I have approached your daycare because I am looking for children ages 3 or 4 to 7. Children will be selected solely on the basis of parent permission for participation. If you are interested in this topic, I would provide you with letters to send home to inform parents of the nature of the study and the procedure involved. In addition, I would ask that I be allowed to interview children at the daycare at a prearranged time should parents prefer that setting to their own home.

If you are interested in having your organization involved and/or would like more information, please contact me at 465-2703. I can be reached there most days and evenings. I would be available to talk with you and your staff and any interested parents as well. Finally, a summary of my findings will be available to all participating parents and staff upon completion of the study.

I will be in contact with you later this month. Thank you for giving this your consideration.

Sincerely,
Peggy Bekolay

APPENDIX VIII

Letter to Parents

Dear Parent,

I am a graduate student in the Master of Education program in Counselling Psychology at the University of Alberta. I have contacted your child's daycare director with regards to my thesis project. I want to learn about the ideas that young children have about death for I feel that it is important for counsellors and other persons who work with children to know what young children understand of death so that they are better able to help them cope if they should experience a loss.

My study will involve talking with several children ages 3 or 4 to 7 years on a one-to-one basis. The only children who will be allowed to participate are those who have parent consent to do so (see attached form). Children will conduct three science experiments to assess their developmental level, then will be asked a series of questions regarding their ideas about death and their experiences with death. I do not intend to question parents' religious beliefs, but will ask children some questions about their contact with such beliefs only to determine if they affect what they know of death. The interviews will be tape recorded, then transcribed in written form. All children's responses will be kept confidential and anonymous as their names will not be included in any part of the report.

If you would be interested in having your child/children participate, please complete the attached form and return it to the daycare director. You may specify where you would like to have your child interviewed and may withdraw your consent at any time. Please note that if your child decides that he/she does not wish to participate, he/she will not be required to do so. He/she will be informed at the start of the session that, should any of the questions bother him/her, a response is not necessary. All children will be given the opportunity to ask any questions or express any concerns to me at the end of the session. If I feel that your child has become upset in any way during the session, I will be available to spend time with you and have an information sheet on talking to young children about death.

You may contact me at 465-2703 if you have any questions or want further information. Thank you for giving this your consideration.

Sincerely,

Peggy Bekolay

APPENDIX IX

Consent Form

I _____ consent to have my child
(parent's name)

_____ participate in Ms. Bekolay's
(child's name)

research project on children's understanding of death.

I am aware that my child will be asked questions about his/her ideas about death and his/her experiences and will be participating in three science experiments. I understand that all of my child's answers will remain in Ms. Bekolay's confidence. I have been informed of my and my child's right to withdraw from the study at any time.

Parent's Signature _____
Address _____
_____
Phone _____

- -

I would prefer my child to be interviewed at home ____
at daycare ____ at the Education Clinic (U.of A.) ____

I would be interested in receiving a summary of the findings when the project is completed.

yes____
no ____

APPENDIX X

Suggestions for Parents

THE CHILD, PARENT, AND DEATH - SUGGESTIONS FOR TALKING WITH YOUR CHILD ABOUT DEATH

Research on children and death has typically shown that young children like your child usually have some difficulty understanding death and often have ideas about death that are different from those of adults. The following is a list of suggestions that various experts in the area have made for adults discussing death with children and/or helping children cope with a loss.

1. Discuss death with your child. Research has shown that often children wish to talk and learn about death but that adults feel they need to shelter them by not discussing it. There are many opportunities for initiating a discussion about death--T.V. shows, stories, a dead animal/bug, children's play, and children's questions.

2. When the topic of death arises, ask your child what he/she already thinks or knows. Encourage him/her to ask questions. This will provide you with a basis from which to start. It is important that children be given explanations they can understand and that any misconceptions be corrected. His/her questions will indicate to you what he/she does not already know or understand or what he/she is interested in learning.

3. Be honest with your child. Think about your own feelings and reactions to death and the discussion of it. Tell your child if you feel uncomfortable or if you do not have the answers to his/her questions.

4. Your child will need simple, honest, and accurate answers to his/her questions. He/she needs to know facts about death. A good guideline for what a young child should be told is that he/she needs the information to answer the questions "How?" and "Why?" accurately. If your child has experienced a loss, he/she needs to know the circumstances surrounding the death.

5. When young children need/want to understand something and are not given enough information, they often create their own explanations which may be inaccurate. It is important to use the words

"death" and "dead" rather than words adults often use to describe death. This should help your child to avoid developing a scary understanding of what death means. For instance, do not use:

(a) "a long sleep" for the child may be afraid that he/she too wil die if he/she goes to sleep.

(b) "we lost him/her" for the child may be afraid to part from you in case he/she too gets "lost."

(c) "gone away" for the child may come to feel abandoned as if the person who died chose to leave, or he/she may feel afraid that you will not return if you "go away."

6. Let your child know what your feelings/thoughts are about death. Do not be afraid to express sadness, anger or other feelings in front of him/her. Explain why the death of someone makes you feel that way. This will help your child to know he/she is not alone if he/she is feeling the same way.

7. Acknowledge and accept any feelings your child expresses, but do not assume you know how he/she feels before he/she tells you. It is important that your child know the correct name for each emotion he/she is feeling.

8. In discussing death with young children, it is important to realize that the following are common:

(a) Young children are often more curious than upset about death. Common interests/concerns center around the funeral, what happens to the body, where the dead person is and what that person feels/thinks.

(b) Young children believe everything has a cause. If they are not given accurate explanations of the circumstances surrounding a death, they may feel that they caused it somehow. Perhaps they wished the person would "go away"; perhaps they had misbehaved. It is important to determine if your child feels at fault and to help him/her to understand that he/she is not to blame.

(c) Young children often have difficulty understanding time and may not realize that death is final, that the person will not return.

He/she may need to be reminded of this several times before he/she truly understands.

Some additional suggestions for helping a child deal with a loss are as follows:

1. Recognize that, while your child may not fully understand what death means, he/she still grieves. Every loss will have a specific meaning for the child and he/she will grieve over that meaning. Often it centres around felings of separation and abandonment. It is important for you to understand what the death means to your child to help him/her cope with his/her loss. It is also important to know that the death may not mean the same to him/her as it does to you.

2. Allow the child to participate in "adult" activities. Do not hide your grief from him/her. Explain the funeral and burial/cremation process and encourage the child to attend. The process helps the child to know the death is real and will answer many of his/her questions.

3. Encourage the child to remember and talk about the person/pet that died.